2339

Pain Thermograms Resolve Compensation Case Disputes

Continued from page 1

"The thermogram," said Dr. Paul H. Goodley of Los Angeles, "is crucial, because what it does is objectify pain signs that are in dispute." Over 60% of his cases are worker's compensation referrals; over 70% of those are disputatious.

Correlation of 97%

Physician-thermographers are often called these days, he added, to show their musculoskeletal findings and to testify as objective witnesses. Dr. Goodley said that with thermogram interpretation, he can reliably affirm or disaffirm diagnosis as based on a study of hard and soft findings. In a study of 90 consecutive cases, involving more than 1,000 thermographic exams, the specialist in orthopedic medicine said, "The correlation between positive physical examination for pathology of any type that was consistent with the patient's complaint and the thermograph was 97.6%; between electromyographic exam and the complaint, 78%."

'Positive Earlier'

"This points to a marked advantage of thermography, said Dr. Goodley. "Not every patient has a pathology sufficient so that you'd expect an abnormal EMG. The EMG is less sensitive but more specific for damage, contrasted to irritation of the nerve. The thermogram becomes postive earlier."

Other specialists who are giving court testimony have reported similar results Dr. Charles Wexler of Encino, Calif., did a dozen exams for the courts last year and, besides authoring numerous papers and audiovisual programs, has performed more than 5,000 musculoskeletal thermographic exams.

Dr. Wexler took a retrospective look at 130 of his cases over 2.5 years and discovered that 93% of the diagnoses were correlated with a positive thermogram, while the EMG could only be correlated positively with 82% of the cases.

The use of thermography, according to California's Dr. Goodley and Dr. Paul Ruegsegger of New York City, is controversial at this point, and many MDs don't understand its purpose or value.

"It does not," Dr. Goodley stressed, "provide a picture of the pain." What it does, said Dr. Ruegsegger, "is represent everything that hurts, where there is no ready information."

Late to Appear

While infrared measurement has been possible since the early 1800s, the latest generation of thermographic equipment did not appear until the high-tech years of the 1970s. Over 300 units, like the ones used by Drs. Goodley, Wexler and Ruegsegger, are in place around the country. This new "Thermovision System" is manufactured by the AGA Corporation and costs around $50,000.

According to Walter M. Bruner, Ph.D., research director of the Thermography Lab at the New Research and Development Corp. in Newark, Del., the units work "by scanning the patient with a minicamera unit containing rotating prisms and indium antimode detectors kept chilled by liquid nitrogen to screen out electronic noise. The scanning speed of the camera is so high that the picture on the oscilloscope is 'live,' and viewed simultaneously on both black-and-white and color monitors."

Courtesy Dr. Paul H. Goodley

Black-and-white thermogram of "Mr. C.C." reveals asymmetry at L5 level, reflects increased heat extending to right side.

Dr. Bruner's laboratory, directed by Dr. Pierre L. LeRoy, handles referral cases from other physicians in surrounding states. About 10-20% of those are worker's compensation-related. Dr. Goodley's thermographic exams are performed in a specially devised facility, The Pain and Diagnostic Institute, which he directs.

'Will Weed Out Racketeers'

In his initial physical examination, said Dr. Goodley, he is "looking sensitively for those signs that are consistent with the patient's complaint. This is where the hard and soft signs come in. The hard signs are something we are taught in medical school: reflex action, loss of muscle strength, an obvious landmark. The soft signs are much more subtle. These are consistent with pathology but require an educated eye, an educated palpation, an educated use of time to pick out the signs that still declare the pathology.

"When I do the physical exam, I am looking for those signs that are consistent with the patient's complaint. Most people have pain without neurologic deficit."

The former internist is passionate about thermography's value to society and feels that the social value is as great as its clinical contribution. "It will help weed out racketeers on both sides of the worker's compensation question," he declared.

The exam, devised by Dr. Goodley, begins in a draft-free set of rooms, cooled to 21°C, by a single air conditioning source. The patient, who receives special instructions to avoid alcohol and smoking for several hours before the exam, is first precooled in these rooms.

While waiting to be examined, all of Dr. Goodley's patients fill out a picture form, indicating where they first experienced the pain and where it has spread.

"Now this is very important information," said Dr. Goodley. "The patient with sincere organic pain is going to draw a line and that's it. But the patient who, 45 minutes later, is still putting in the Rembrandt shadings, that speaks for itself as to the degree of focus that patient has on the case."

With the patient's interpretation of his pain in front of him, Dr. Goodley studies the injured area and takes approximately

Continued

Read What These Authorities Say About Forensic Thermography Vs. Pain

"Thermography appears as a most effective method of detection of cases with organic pain syndromes and RSD (reflex sympathetic dystrophy) . . . Our experience with thermography since 1970 has convinced us that thermography is the most effective method for fulfilling this need."

Sumio E. Uematsu, M.D., Director, Neurometrics Laboratory, Department of Neurosurgery, Johns Hopkins University School of Medicine.

"I have found the thermogram to be 93% accurate in a controlled series of patients during a 29-month study. The EMG, by contrast, was 82% accurate . . . It appears that the thermogram can detect abnormalities or irritation of the sensory portion of the nerve root as well as the motor portion."

Charles E. Wexler, M.D., Chief, American Academy of Neurological and Orthopedic Surgeons College of Radiology.

"For the first time triggerpoints, the hallmark of myofascial pain syndromes, can be studied objectively . . . Physiological correlates of pain induced by changes in vasomotor activity can be documented objectively and quantitatively . . . Thermography adds a new important aspect to documentation and differential diagnosis of pain originating in soft tissue . . ."

Andrew A. Fischer, M.D., Chief, Rehabilitation Medicine Service VA Medical Center, Bronx, New York

". . . Thermography is the lie detector of soft tissue injuries."

Joel M. Grossman, D.C., Wymore Chiropractic Office, Winter Park, Florida

"Thermography makes it possible to corroborate patients' subjective complaints even in the absence of other objective signs."

Erwin R. Tichauer, Sc.D., Professor and Director, The Center for Safety BioMechanics Laboratory, New York University Institute of Rehabilitation Medicine.

"The thermogram is crucial, because what it does is objectify pain signs that are in dispute . . . It will help weed out racketeers on both sides of the workers compensation question . . ."

Paul H. Goodley, M.D., Director, Pain Diagnostics and Rehabilitation Institute, Los Angeles.

"When correlated with other clinical findings . . . the thermogram is a valid test for vascular and neuropathic disorders. Although clinical thermograms require expert medical interpretation, they are easily explained to the layman."

Pierre L. LeRoy, M.D., Chief, Department of Neurosurgery St. Francis Hospital, Wilmington, Del.

"Before thermography people who claimed whiplash injuries were often treated with amused skepticism . . . Now we have something convincing that we can show to those twelve people in the jury box. Pain cannot be seen on an X-ray, but evidence of it definitely shows on a thermogram."

Margaret Abernathy, M.D., Department of Neurology, Georgetown University Medical School.

". . . This new technology can serve justice and the patient at the same time."

Harry Rein, J.D.M.D., Medical Director, Thermographic Medical Associates, Inc. Consultant in medical injury and medical malpractice litigation.

"I feel that in the next decade . . . (thermography) is going to become one of the most exciting diagnostic tools in pain clinics."

Mathew H.M. Lee, M.D., Director, Department of Rehabilitation Medicine, Goldwater Memorial Hospital, New York City.

"Perhaps the single most exciting objective technique that has emerged in the last ten years is thermography."

I. Alfred Breckler, M.D. attorney, in American Jurisprudence, Proof of Facts (Pain and Suffering), Second Series, Volume 23, 1980

"Judge Schwartz told the *Daily Journal* he never had doubts about admitting the thermogram test into evidence after listening to the testimony of Dr. Charles E. Wexler."

Judge S.S. Schwartz, Van Nuys Superior Court, in Daily Legal Journal, Los Angeles.

"Distinctive patterns of skin temperature . . . for referred visceral, radicular and spinal cord pain . . . can be differentiated on a thermogram . . . Thus the technique provides a good objective measure of the effectiveness of treatment."

William H. Hobbins, M.D., Surgeon, President, Wisconsin Breast Cancer Detection Foundation.

"Thermography is extremely useful in objective evaluation of acute musculoligamentous injuries . . . A (pre-employment back screening) program would undoubtedly prove to be of immense value to all parties concerned, namely, the employee, the employer, and the insurance industry."

Harold L. Karpman, M.D., Private Clinic, Beverly Hills, California

Reprinted from

Internal Medicine News

Vol. 11, No. 1 Fast, Accurate Report for the Internist, Cardiologist, and Gastroenterologist January 1, 1978

Thermograms Can Help Distinguish True Pain From Malingering

International Medical News Service

BOSTON — Thermography is useful in determining if a patient is genuinely in pain or is malingering because, when there is real pain, its presence along nerve pathways can be clearly traced on the thermogram, two physicians said in separate presentations at the annual meeting of the American Thermographic Society.

In low back pain patients, especially when malingering is suspected, a methodical approach that includes filming the legs and feet helps to make an accurate study. It is particularly useful if a lawsuit is involved, said Dr. Charles E. Wexler, of Encino, Calif.

In the brief history he requires, each patient is asked to mark on a simple diagram of the back and legs just where he feels pain. Dr. Wexler also has the patient use a pointer to indicate the site of his pain while the thermogram is being made.

In cases of accused malingering that are headed for the courtroom, Dr. Wexler has found it important to take and read his own thermograms. "You have got to be aware, almost painfully aware in these cases, that you are going to be sitting on the witness stand some day."

In dealing with the back, "correlation of the thermographic findings with the patient's complaint is the key to the question," he added.

In some instances in which there is little clinical evidence and the significance of the thermography findings has been questioned, a series of thermograms made over several days will demonstrate that the individual patterns of hot and cold areas remain the same.

"It is my feeling that these patterns, like the patterns in the breast, may be relatively constant for each individual and each injury." Persons who are not malingering generally have one area in which they feel pain. The thermogram almost always illustrates a clear difference in temperature in those spots, Dr. Wexler reported.

When making a lumbar thermogram of patients with back pain, the lower extremities are also screened. A minimal routine lumbar study includes fine detail black and white thermograms of the feet and lumbar area at close range and color thermograms encompassing the lumbar region and legs and feet, with whatever additional angles are necessary for complete information.

When multiple level disks are abnormal in diskogram studies, thermograms may also indicate this when, clinically, only one is symptomatic. "I feel this indicates that a thermogram may be able to determine lumbar disk disease when it is in a clinically equivocal stage," Dr. Wexler said.

For evaluating chronic pain anywhere in the body, thermography has proved easy, fast, and reliable, said Dr. Sumio Uematsu, director of the neurometrics laboratory, Johns Hopkins Medical Center, Baltimore.

Measuring chronic pain is not easy and such methods as electric resistance tests, colorimetry, plethysmography, and thermocouples studies generally are not practical, he said.

In the healing process, nerve fibers can become crossed, altering the information they transmit. The result is cross-stimulation followed by vasospasm and ischemia.

"After many months of this, trophic changes can occur in the joints, skin, and bones. It is important for the physician to make a diagnosis before these obvious changes and dystrophies occur."

In acute pain, the affected area tends to appear as hot on the thermogram; chronic pain shows up as a cold area. "Sometimes the degree of coldness is striking," he said.

In a patient who said her knee hurt so much she could not bear to wear stockings or slacks, the area she indicated appeared on a thermogram to be 3.5° C colder than her other leg.

"A thermogram helps to convince the treating physician and helps to educate the patient because it shows what an X-ray cannot, as in tennis elbow, for instance.

"Showing the patient the results of the thermogram also is much better than telling him you cannot find anything. It has the useful effect of heading off a possible trip to the psychiatrist or lawyer. Many times it is possible to explain there is no injury except to the nerve and time will probably help correct it," he said.

In other, carefully selected cases a sympathectomy may be necessary and effective in preventing crippling, Dr. Uematsu added.

Alaska Thermography

FRONTIER BUILDING
3601 C Street • Suite 390
Anchorage, Alaska 99503
(907) 563-3677

THERMOGRAPHY IS CURRENTLY BEING USED IN

THE U.S.A. AND ABROAD FOR EVALUATING

THE FOLLOWING CONDITIONS

	1.	Arthritis	17.	Myofascial Syndromes
*	2.	Brachial Plexus Injury	* 18.	Nerve Stretch Injury
	3.	Breast Disease	* 19.	Nerve Trauma
	4.	Burns	* 20.	Neuropathy
*	5.	Carpal Tunnel Syndrome	* 21.	Neurovascular Compression
	6.	Central Nerve Injury with Peripheral Signs	* 22.	Peripheral Nerve Injury
	7.	Compartment Syndrome	* 23.	Physiologic Nerve Dysfunction
	8.	Deep Vein Disease	* 24.	Reflex Sympathetic Dystrophy
*	9.	Disc Disease	* 25.	Sacroiliac Ligament Tear
*	10.	Facet Syndromes	* 26.	Soft Tissue Injury
	11.	Grafts	* 27.	Sprain/Strain
	12.	Hysteria	28.	Stroke Screening
	13.	Inflammatory and Rheumatoid	29.	Synovitis
	14.	Internal Carotid Insufficiently	* 30.	Thoracic Outlet Syndrome
*	15.	Lumbosacral Plexus Injury	31.	Temporal Arteritis
*	16.	Malingering	32.	Trigger Points

Alaska Thermography currently limits its evaluations to the number preceeded by an astrick.

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LEGISLATIVE POSITION PAPER

LEGISLATION

Senate Bill - 177 (Josephson)

PURPOSE

An act providing for freedom to choose providers under medical, hospital or health insurance policies.

SUBSTANCE

Would allow an insured under a group or individual medical, hospital or health insurance policy including group, service or indemnity contracts to have free choice of provider.

BACKGROUND

There are basically two types of insurance contracts or insurance related contracts which this measure would affect. The first kind of contract are pure indemnity insurance contracts such as issued by stock insurance companies on an individual or group basis providing a schedule of benefits for persons using services of a physician, a hospital or using pharmaceuticals or prosthetics. These contracts typically pay a percentage of reasonable and customary cost for these services and also place no restriction on the providers that are utilized except most contracts provide that services must be provided by a licensed physician as opposed to a chiropractor, or by a licensed hospital as opposed to a clinic or licensed health care facility.

This legislation would permit a person to decide whether to use the services of a physician, osteopath, chiropractor or a nurse midwife to provide coverage services which the policy anticipated would be provided only by a physician or other permitted practitioners.

The second type of contract is the prepaid service contract. Today there are several forms which prepaid contracts now take; Blue Cross, Blue Shield, Kaiser Permanente, HMO's Preferred Provider Contract and so forth, are typical of the prepaid contract. They all have at least one common denominator, which is, the service corporations providing the benefits have entered into service contracts with specific providers, either specific hospitals, specific physicians or specific health care practitioners of a different classification. It is the nature of those service companies to be able to provide less expensive coverage because of special contracts with the providers.

It should be noted that these types of contracts are governed by Chapter 87 of the Insurance Code (AS 21.87) which fully regulates these types of health care service organizations, but which specifically permits and in fact anticipates that the Health Service Corporation would enter into a provider contract and that those subscribing to those services would use the providers with whom the service corporation has contracted.

The proposed amendment would seem to prohibit the types of activities which are now contemplated in Chapter 87.

SB

185

STATE OF ALASKA
FISCAL NOTE

Revision Date , 1983

I. REQUEST

Bill/Resolution No.: SB 185
Title: An Act Re: Scholarship Loans
Sponsor: Senator P. Fischer
Requestor: Senate HESS

II. FISCAL DETAIL

Agency Affected: Education
Program Category Affected: Postsecondary Comm.
BRU, Program of Subprogram(s) Affected:
Student Loan Program

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING						
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS, ETC						
TOTAL OPERATING						
CAPITAL	N.A.	12,375.0	10,573.7	11,836.4	18,304.3	25,187.7
REVENUE		-0-	-0-	87.6	227.3	391.2

FUNDING: (Thousands of Dollars)

GENERAL FUND	N.A.	12,375.0	10,573.7	11,748.8	18,077.0	24,796.5
FEDERAL FUNDS						
OTHER (Specify Source)						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Kerry D. Romesburg Phone: 465-2854
Division: Commission on Postsecondary Education Date: 3/24/83

Approved by Commissioner: Date:
Department:

Distribution:
Original to Legislative Finance
Copy to Office of Management and Budget (for Legislature introduced bills)
Copy to Department (for Governor introduced bills)
Copy to Sponsor
Copy to Requestor (if different from Sponsor)

3/8/83

IV. ANALYSIS

a. High school seniors (projections)

Year	Number
1983-84	6,348
1984-85	6,581
1985-86	6,467
1986-87	6,626
1987-88	6,600
1988-89	7,577

b. Postsecondary education attendance rates

According to the Commission's annual high school senior survey, approximately 59% of Alaska's seniors plan some type of postsecondary attendance. Therefore, the potential borrowing rates would be:

Year	Potential Borrower
1983-84	3,745
1984-85	3,883
1985-86	3,792
1986-87	3,909
1987-88	3,894
1988-89	4,470

c. Projections based upon a requirement that in order to be eligible, a new borrower must be a senior in an Alaskan high school and a 12-month resident, but also providing a one-time "open enrollment" or "window" period for all persons currently 12-month residents to apply for use of the loan within the next 5 years.

Year	Loan Awards	Loan Volume	General Fund
1983-84	17,060	$ 83,594,000	$ 75,152,105
1984-85	18,762	105,067,200	93,205,101
1985-86	20,463	120,731,700	104,360,047
1986-87	21,353	125,982,700	104,890,675
1987-88	19,149	113,936,550	88,924,392
1988-89	19,091	113,591,450	85,017,519

SB

189

SECTIONAL ANALYSIS OF SB 189 "AN ACT RELATING TO THE PRACTICE OF OPTOMETRY AND AUTHORIZING THE USE OF PRESCRIPTION DRUGS BY OPTOMETRISTS"

SECTION 1 ADDS A NEW SECTION TO THE STATUTES TO AUTHORIZE THE USE OF, AND PRESCRIPTION OF ALL PRESCRIBED(OR LEGEND) DRUGS BY OPTOMETRISTS.

SECTION 2 (a) AUTHORIZES THE OPTOMETRY BOARD TO IDENTIFY AND APPROVE BY REGULATION UNDERGRADUATE AND POST GRADUATE PROGRAMS THAT TRAIN OPTOMETRISTS IN THE USE OF PRESCRIPTION DRUGS. ALSO AUTHORIZES THE PROMULGATION OF CONTINUING EDUCATION REGULATIONS.

(b) PROHIBITS THE USE BY OPTOMETRISTS OF ANY DRUGS OTHER THAN LEGEND DRUGS, AND ONLY WITH THE APPROVAL OF THE BOARD BY LICENSE ENDORSEMENT.

(c) A LICENSE ENDORSEMENT ATTACHES TO THE LICENSE FOR EXPIRATION PURPOSES AND MAY BE RENEWED UPON EVIDENCE OF COMPLETION OF REQUIRED CONTINUING EDUCATION.

(d) THE BOARD SHALL ADOPT REGULATIONS FOR THE USE AND PRESCRIPTION OF LEGEND DRUGS AND MAY IMPOSE SANCTIONS AGAINST VIOLATORS.

(e) THE BOARD OF OPTOMETRY WILL NOTIFY THE BOARD OF PHARMACY OF ALL LICENSEES HOLDING A LICENSE ENDORSEMENT.

SECTION 3 REMOVES FROM STATUTE THE PROHIBITION AGAINST THE USE OF DRUGS BY OPTOMETRISTS, AND ALLOWS THE USE OF DRUGS FOR DIAGNOSIS AND TREATMENT OF INFLAMMATIONS, INFECTIONS AND INJURIES OF THE EYE AND EYELID.

SECTION 4 SAME AS SECTION 3 IN AMENDING THE DEFINITION OF THE PRACTICE OF OPTOMETRY.

SECTION 5 DEFINES LEGEND DRUGS AS THOSE REQUIRING A PRESCRIPTION.

SECTION 6 INCLUDES OPTOMETRISTS IN THE STATUTE AS THOSE ALLOWED TO PRACTICE MEDICINE AND THEREFORE LIABLE FOR VIOLATION OF PRACTICING WITHOUT A LICENSE.

POSITION PAPER
SENATE BILL NO. 189

"An Act relating to the practice of optometry and authorizing the use of prescription drugs by optometrists."

This Bill would permit the use of legend drugs by certain optometrists and would delete from the definition of optometry the restriction against the use of drugs. Legend drugs as defined in Section 5 of the Bill "means drugs whose containers must bear a label prohibiting dispensing without a prescription". The Bill also specifically permits optometrists to engage in the "diagnosis and treatment, including the use of drugs, of inflammations, infections and injuries of the eyes and eyelids".

A majority of states now allow optometrists to use diagnostic topical drugs, either through specific enabling legislation or through the lack of specific prohibitions. Few, if any, permit the use of therapeutic drugs. This Bill, as now written, would apparently permit the use of any drug, whether topical or systemic, in the diagnosis and treatment by an optometrist of inflammations, infections and injuries of the eyes and eyelids. Arguably, the proposed legislation may be construed to permit the practice of opthalmologic surgery by optometrists since surgery is not specifically prohibited.

Even the use of diagnostic topical drugs by optometrists, i.e., drugs which cause the pupil to open or to close down or which paralyze the muscles which control the shape of the lens, has been controversial. Those in favor of the use of drugs by optometrists argue that optometric services are more widely distributed than ophthalmologic services and that the optometrist serves as an entry point for primary eye care. The use of diagnostic drugs is said to expand the ability of the optometrist to recognize eye abnormalities and to increase medical referral for diagnosis and treatment. The optometric group also states that the use of diagnostic drugs rarely causes adverse effects.

Those opposing such legislation argue that the use of drugs would not materially improve the capacity of optometrists to recognize abnormalities. Optometrists are not expected to diagnose diseases of the eye and, if a departure from normal is noted, the patient is expected to be referred to a physician for diagnosis. The concern on the part of the medical community is that the optometrists would be making diagnostic judgements which the physicians do not believe them qualified to make. Moreover, the medical community notes that adverse reactions, while admittedly rare for certain of the diagnostic drugs, can have extremely serious consequences when they do occur. A higher rate of predisposition to a certain type of glaucoma in Alaska Natives is cited. Use of mydriatic drugs could possibly precipitate an attack. The potential use of therapeutic drugs can be expected to raise even greater concern.

Limitations are placed on the use of certain diagnostic drugs by legislation in some states. In Oregon, for example, the Board of Optometry is empowered to designate the diagnostic pharmaceutical agents for topical use, but provides that the designation shall be with the advice and guidance of the Board of Medical Examiners.

Some states define the type of training in pharmacology which would be required before an optometrist would be permitted to use even diagnostic drugs. SB 189 contains no such provisions.

The Department of Health and Social Services does not support HB 225 in its present form because of the overly broad definition of the types of drugs which would be authorized, vagueness with regard to the limits of optometric practice and lack of provisions with regard to the educational qualifications required for use of drugs. If the Legislature chooses to authorize use of certain drugs by optometrists, the Department suggests that definitions and restrictions similar to those in use in other states may be advisable and that the professional opinion of the medical and optometric communities should be sought to insure the health and safety of the general public.

Recommended by: E. S. Rabeau

E. S. Rabeau, M.D., Director
Division of Public Health

Date: March 23, 1983

Approved by: Robert London Smith

Robert London Smith, Ph.D.
Commissioner
Dept. of Health & Social Services

Date: 3/30/83

FISCAL NOTE [Revision Date , 1983]

I. REQUEST

Bill/Resolution No.: SB No. 189

Title: "Relating to the practice of optometry."

Sponsor: HESS (Josephson)

Requestor:

II. FISCAL DETAIL

Agency Affected: Health & Social Services

Program Category Affected: Health

BRU, Program of Subprogram(s) Affected:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 83	FY 84	FY 85	FY 86	FY 87	FY 88
OPERATING		0	0	0	0	0
100 PERSONAL SERVICES						
200 TRAVEL						
300 CONTRACTUAL						
400 COMMODITIES						
500 EQUIPMENT						
600 LANDS & STRUCTURES						
700 GRANTS, CLAIMS, ETC.						
TOTAL OPERATING		0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		0	0	0	0	0
FEDERAL FUNDS						
OTHER (Specify Source)						
		0	0	0	0	0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						
		0	0	0	0	0

III. SOURCE OF FUNDS TO OFFSET FISCAL IMPACT OF BILL:

IV. ANALYSIS: Attach a separate page for any Analysis

Prepared By: Dean F. Tirador, M.D. Phone: 465-2113

Division: Public Health Date: 3/23/83

Approved by Commissioner: Robert Loeber Smith Date: 3/30/83

Department: Health and Social Services

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3/8/83

TO: N.D. FROM J.J SB 79

In reviewing House Bill #75 and Senate Bill #79, Section 2, Subsection 08.72.305 - Use of Drugs for Diagnosis, included in the list of drugs proposed to be used is a class of drugs called miotics. This group of drugs is only therapeutic and has no diagnostic use. They are used for treating chronic glaucoma and acute angle closure glaucoma. What is a therapeutic drug doing in a "diagnostic" bill? Mr. George Hall's and Mr. Sternberg's (both Anchorage optometrists) response to this question at the March 1, 1978 meeting of the Legislative Coalition of Health Care Professionals in Anchorage and at the 1978 hearings on a similar bill introduced and defeated last year respectively was: "To take care of angle closure." "To use this as a first aid measure." This is treatment.

Treating angle closure glaucome is very difficult and requires more than just putting a miotic eye drop in the eye. Treatment of this condition requires surgery in 1 cases. To break the angle closure attack before surgery, hospitalization, Diamox and intravenous Manitol is necessary in many cases. If angle closure glaucoma goes untreated, blindness results. All cycloplegics and mydriatics (dilating drops) can cause angle closure glaucoma.

It has been suggested to you by the optometrists that the incidence of angle closure glaucoma is only 1 in 18,400 cases. What they do not tell you is that a unique situation exists with the native Alaskan. The incidence of angle closure is 1 in 1,900 cases and even higher if dilating drops are used. This problem usually takes several hours to develop, long after the optometrist would have left the village. If we were to allow the optometrists to use dilating drops, this would result in many more unnecessary surgical emergencies and possible blindness. In view of this well known fact, ophthalmologists are hesitant to use mydriatics and cycloplegics in the Alaska native, especially in the bush areas.

Miotics are a therapeutic class of drugs and are listed incorrectly in the proposed bills as diagnostic drugs. Either the optometrists do not have a thorough understanding of the eye medications, or they are asking the legislators to allow them to treat glaucoma and other eye conditions. The proposed bill lists only broad general categories of the desired eye medications, no specific drug names and concentrations. The classes of drugs include such potent substances as Cocaine, Atropine, Scopolamine, Phenylephrine and Phospholine Iodide. All these drugs when applied to the eye are readily absorbed into the bloodstream and are capable of producing a wide range of total effects.

Cocaine, a topical anesthetic and mydriatic (dilater of the pupil) is a Class II narcotic controlled substance which is subject to wide spread abuse by addicts and requires a controlled substance registration certificate to dispense or use.

Optometrists are not medical doctors and cannot get a federal narcotics certificate. These drug bills are inconsistent with federal regulation on this point.

Atropine and Scopolamine are cycloplegic agents which paralyze the eye's focusing power and in sufficient doses produce irritability, hallucinations and even coma. Phenylephrin (a mydriatic) has the ability to raise the blood pressure markedly and to alter the rhythm of the heart and has been implicated in deaths in older people through strokes and in children through cardiac arrhythmias. Phospoline Iodide, a miotic which constricts the pupil, is used in the treatment of glaucoma (elevated pressure in the eye) and in certain cases of crossed eyes. The active ingredients are related to the active substance in certain insecticides and nerve gas. This medication has been shown to produce retinal detachments and cataracts.

The above are only a few examples demonstrating what potential dangers exist in the various classes of drugs listed in the proposed bills. By allowing wide spread use of these drugs by nonmedical persons, the overall risk to the general public of potentially serious side effects or untoward reactions are markedly increased.

I. EYE HEALTH CARE PROVIDERS OF THE CONSUMING PUBLIC

The American Optometric Association defines an optometrist as:

"...a health care professional who is specifically educated, highly trained and state licensed to examine, diagnose, and treat conditions of the vision system. Optometrists are highly skilled individuals who examine the eyes and related structures to determine the presence of vision problems, eye diseases and other abnormalities. They gather information on the vision system during the optometric examinations, diagnose any conditions discovered and prescribe optometric treatment such as contact lenses or vision therapy that may be required to provide the patient with clear effecient vision."[1]

Although this definition is broad, the Alaska legistlators have specifically narrowed the definition down considerably. According to the Alaska State Statutes, Title 8, Business and Professions Section 08.72.300, the Statutes define optometry as:

1. "Optometry" is the employment of means or methods, <u>other than the use of drugs</u>, for the diagnosis of an optical deficiency or deformity, visual or muscular anomaly of the human eye, or the prescription or application of lenses, prisms or ocular exercises for the correction or relief of the human eye:

2. "practicing optometry" means the diagnosis, <u>by means or methods other than the use of drugs</u>, of an optical deficiency or deformity, visual or muscular anomaly of the human eye, or the prescription of lenses, prisms or ocular exercises for the correction or relief of the human eye, or the holding of oneself out as being able to do so.

The optometrists will or have suggested to you that they are legally bound to diagnose eye diseases and that they are in a dilemma in that they cannot diagnose eye diseases without the use of drugs. They are only in a dilemma if the broader sense of the definition is used as set forth recently by the American Optometric Association. However, the Alaska State Legislators have ingeniously removed that dilemma for the optometrists by limiting them to the diagnosis of visual anomalies, muscular anomalies, optical deficiency or deformities and <u>not</u> eye diseases.

Furthermore, this construed dilemma is removed by a landmark decision by Judge James M. Fitzgerald, United States District Judge for Alaska in the Timothy Steele case in Fairbanks, Alaska. This is the case where an optometrist in Fairbanks used a dilating drop and noted an abnormality and did not refer the child to a medical doctor. The following is a direct and full quote of the Judge's conclusion:

> "I conclude that competent optometric practice required that Timothy's parents be notified and that the child be referred. The failure to inform and refer was not a 'judgment call' but a violation of the governing principles of professional standards.
>
> Optometrists are trained to recognize symptoms of many diseases which may be discovered by eye examination. They are not permitted under recognized optometric standards to undertake a definite diagnosis but recognize this as the responsibility of a medical doctor. Obviously, it is foreseeable that failure to refer to a qualified medical practitioner, when required to do so, will result in delay of diagnosis and the institution of treatment; so it proved to be in Timothy's case. At the time the referral was finally made to an ophthalmologist, it was too late. Time had run out, and the only thing that could be done was to remove the eye.
>
> I conclude that the plaintiff is entitled to recover in this action from the United States for the loss of Timothy's right eye.
>
> DATED at Anchorage, Alaska, this 20th day of October, 1978."
>
> ss: James M. Fitzgerald
> United States District Judge

If these bills passed, the statutory law would be inconsistent with common law or court decisions. Let us examine the optometrist's construed dilemma a bit closer. In an article "How the General Practitioner Can Determine the Need for Ophthalmologic Referral", it has been shown that the initial clues to eye disease are determined by history, visual acuity and external examination by handheld flashlight. Only .1% of eye disease is initially determined by using dilating drops. See Table A.

In sum, to both the conscientious physician and the conscientious optometrist the need for referral of a patient to an ophthalmologist is usually obvious through the application of history, visual acuity, and external examination by hand-held flashlight, and does not require sophisticated instruments.

Most importantly, do not dilate the pupil. Routine tonometry according to established standards and viewing the fundus oculi through the undilated pupil are the additional needed methods. The use of mydriatic drugs to dilate the pupil risks precipitating acute narrow angle glaucoma by a 9:1 ratio over uncovering any hidden disease process. Thus it is obvdious that there is no dilemma at all. This dilemma was construed by the optometrist for legilative purposes.

By now you have heard from the optometrists that there is another law suit filed against an Anchorage optometrist. They also state that if they could dilate the pupil to look in that the law suit would not have been filed. Well, the optometrist dilated Timothy Steele's pupil and still a law suit was filed and was won by Timothy Steele. The falacy of this statement by the optometrists is clear in light of Judge Fitzgeralds decision and the article on what people need ophthalmologic referral.

The ophthalmologist is a medical doctor who has completed a 3-5 year residency program after one year internship preceeded by 4 years of college and 4 years of medical school. He is trained in the diagnosis and treatment of ocular dysfunction and disease and in the use of all techniques or treatment including drugs, surgery, laser photocoagulation, radiation, etc. Because he has been trained as a general physician first, his perspective of the eye is broader than the optometrist. He views the eye and its diseases within the context of the whole body physiology and pathology. Further, refraction to the ophthalmologist is viewed as only one necessary step in a differential diagnosis of the patient's complaint. Table 1 demonstrates the overall education and numbers of optometrists and ophthalmologists. From Table 1 it is evident that the ophthalmologists have much more training in pharmacology and pathology than the optometrists. Still the optometrists continue to compare their curriculum hours to dental school hours. They continue to say that if the dentists can use medications, why can't we. This is like comparing apples to oranges. They are not asking to use the drugs dentists use or to diagnose oral pathology. They are asking to do what the ophthalmologist does.

Therefore, it is more appropriate to compare ophthalmologists curriculum hours to optometric curriculum hours. (Please read Ref.#43, which explains this point in detail for the State of Alaska.) It is immediately obvious that the ophthalmologist has many more hours of classroom or book learning and many more years of clinical experience. The optometrists indicate that they can also take courses, but where do they get the years of clinical experience of putting drugs into the eyes of patients under close supervision of the clinical medical professors who are medical doctors. Optometrists simply do not get this type of training. Book learning is one thing, but clinical experience is most important.

Table 2[4] gives a comparison of consumer services offered by ophthalmologists and optometrists. It is quite apparent that there is considerable overlap. This is most apparent with respect to refractions. The optometrist obviously can do some of the things the ophthalmologist can do; the ophthalmologist can do all of the things the optometrist can do, has the education to better interpret the data acquired, and provide medical/surgical treatment. The ophthalmologist is trained to provide complete eye care and to evaluate ocular dysfunction in the context of total body physiology and pathology. The ophthalmologist is a complete eye care provider. Although the overlap of professional services is greatest for refractions, this is a source of considerable consumer spending in both professions.

ECONOMICS (AND PRACTICE)?

Table 3[5] shows the substantial number of public dollars which are expended for eye care. A total of approximately $4,135 million dollars were spent in 1975 for vision care services.[6] The national consumer spending for ophthalmic surgery is not listed. This would make the total ophthalmologic dollar spent on eye care far greater than the optometric dollar. If optometrists are allowed to expand the scope of their practice through the use of diagnostic drugs, the price of the basic eye examination would undoubtedly rise. Proposed national health care legislation can be expected to impact heavily upon these figures. For example, if the Kennedy-Mills National Health Insurance proposal were to include coverage of sight correction services, total spending for these services would rise by 21% or $866 million dollars per year. It is obvious that there will be considerable effort by optometrists to ensure their fullest possible participation in this program. The economic stakes are very high.[7] This makes it very clear why optometry has put on an aggressive nationally organized push to legislate themselves into a better position to compete for this consumer dollar. Even though

the optometrists in the State of Alaska suggest that this is not a "money bill"-- it is. It is merely the first step toward the national optometric goal to attempt to become primary eye care providers.

This image change is being sold to the public by a sophisticated national advertising compaign. This multi-million dollar campaign is funded by the national optometric organization through dues and special assessments. They are trying to sell themselves as "your family doctor of optometry...the one to see and keep seeing". Calling themselves family doctors in the opinion of the ophthalmologists is misleading since they are not medical doctors as are the family practitioner or family doctor. These adds are occurring on national T.V., radio and magazine; such as, The Ladies Home Journal, Better Homes and Gardens, etc. Adds that show stethoscopes hanging around the neck of the optometrist is also misleading, as the general public associates the medical doctor with the stethoscope. One article in the Anchorage Times even referred to a group of optometrists as physicians and the word ophthalmologist was used. (See supporting documents)

We should expect that in the future the Alaskan optometrists will follow the attempt of other state optometric associations to next try for the priviledge to use these same diagnostic drugs as therapeutic agents. An attempt was made in West Virginia to legislate the privilage of eye surgery, but this was defeated.

The optometrists have claimed at their bill hearings in the lower 48 that they see 70% of the eye consumers and therefore are the point of first entry into the eye care system. Looking first at the source of this claim and national statistics, the fallacy of this claim is demonstrated. They have erroneously assumed that the average number of eye consumers seen by each practitioner is the same. Thus the source of the fallacy: that since they compose 70% of the national work force they see 70% of the eye consumers.

Table 1 indicated the total number of practitioners in each group.[8] The median number of patients seen per week by optometrists was 43.2; the median seen by ophthalmologists was 102.9. The ophthalmolcgist sees more than twice as many patients as the optometrist while he comprises only 30% of the work force. It is therefore, clear that the ophthalmologists care for half the patients, while the optometrists, comprising 70% of the national work force, care for the other half. The statistics in Alaska show that there is a total of 40 optometrists[10] and 25 ophthalmologists[10]. Thus the ophthalmologists make up 39% of the state work force

people in all sections of the state and in many small communities through the itinerant program.

In the states where optometric drug laws are in effect, optometrists who which to use drugs much take short slide and lecture courses on pharmacology. This has or will create two classes of optometrists, which can only lead to additional consumer confusion about a profession already shrouded in confusion. In addition, the use of drugs by optometrists could falsely lead patients to believe diagnostic expertise is available from optometrists.

It is misleading to the consumer and legislature to imply that any drug is purely diagnostic. Each of the classes of drugs asked for by optometry have therapeutic uses. Will the optometrists resist the temptation to use these drugs to treat conditions beyond their knowledge and skill?

It has been said by the optometrists that they would like to use dilating eye drops also in the their bush clinics when they see Alaska natives. A unique situation exists within the native population of Alaska. The incidence of angle closure glaucoma is 1 in 1,800, not 1 in 20,000 as in caucasions. To allow the optometrist to use these dilating eye drops would result in many more cases of acute angle closure glaucoma, for which they are not trained to treat, and which requires quick and effective treatment to prevent blindness. Sometimes angle closure glaucoma requires administration of intravenous Diamox, Manitol or urea. This would result in further expenditure of health care dollars.

III. LEGISLATIVE DUTY FOR THE EYE CARE CONSUMER:

As practitioners of an occupation which deals with the integrity of eyesight, optometrists have been recognized by the Washington Legislators as members of a "learned profession".[12] Professionals who deliver health care may be regulated by the state via its

and the optometrists 61%. Applying the same national ratio of eye consumers seen by optometrists and ophthalmologists, it is evident that the ophthalmologists see 56% of the eye care consumer, but makes up 39% of the state work force. The accuracy of the ratio of two to one was checked in the city of Anchorage by comparing the humber of eye consumers seen by the most active ophthalmologist in town - 40-50 eye consumers, as compared to the most active optometrists in town - 20-25 eye consumers seen in one day. The average ophthalmologist in Anchorage sees 30 people per day. The average optometrist sees 15 people per day. These figures would seem to indicate that although ophthalmologists are a smaller group than optometrists, the public will seek out their services given a free market choice.[11] On this point, the eye consumer in the state of Alaska has ready access to the ophthalmologic eye care providers. Some of the states in the lower 48 are mainly rural and ophthalmologists are congregated in the metropolitan areas and the optometrists are distributed over the rural areas. However, much of Alaska is "bush country", so that the ophthalmologists and optometrists are both congregated in Anchorage, Fairbanks, Kenai Peninsula and the southeast. There are only two areas (Kodiak and Bethel) that have a full time optometrist and no full time ophthalmologist, Table-Map 5,6. However, there are other medical doctors in these communities with "medical know how" and there are airports for evacuation in the case of eye emergencies. Furthermore, Kodiak and Bethel are visited on a regular basis by itinerant ophthalmologists. In fact, most areas in Alaska are served by itinerant ophthalmologists both by Alaska Native Service and by private practicing ophthalmologists, Table-Map[6]. In the 14 other states where a similar bill was passed, these states were mainly rural with a maldistribution of ophthalmologists. In these states, this was the main reason for passing the legislation. Therefore, this argument for passing House Bill 74 or Senate Bill 75 does not apply to the State of Alaska, because the distribution of ophthalmologists is essentially identical to that of the optometrists. Thus, the health services of ophthalmologists are readily available to

police powers to oversee those activities which are involved with health, education and welfare.[13] The healing arts particularly have been the subject of regulatory legislation which specifies strict requirements for the practive of such professions.[14] The intent of such restrictive legislation is avowadly the protection of the public against injuries it may suffer from the conduct of such business or calling.[15] The state may reasonably impose any condition precedent to the grant of its consent to practive a healing art, which has a real and rational relation to that objective.[16]

The usual means taken by the state in applying these conditions as quality standards has been by imposing licensing requirements and by carefully defining the particular professions involved.[17] Constitutional challenges to this power of the state have been universally defeated when that power has been reasonably exercised.[18]

Licensing requirements usually specify minimum standards of professional competence for the profession covered and frequently the definition of the profession gives broad areas of practice which will be considered appropriate for the practitioner seeking licensure. Additional restrictions upon the practice can be found in state statutes which define unprofessional or unethical conduct.[19]

The above state powers are broad and greatly influence the scope and freedom of practice by the health care provider. Although the right to follow a profession is recognized as a valuable property right which is constitutionally protected,[20] such a right is not absolute; there is no natural or vested right to practive within the healing professions. Any such right is a conditional use.[21]

The justification for such regulations lies in a perceived right and duty of the legislature to protect the citizens of the state from incompetants and fraudulent health practitioners.[22] The Washington Constitution specifically vests exclusive authority in the legislature to:

"...regulate the practice of medicine and surgery and the sale of drugs and medicines."[23]

From this, courts have construed legislative authority to regulate, by means of separate statutory licensing requirements, all of the various professions and occupations engaged in health care delivery. This includes many professions which are not obviously included in "...the practive of medicine..."[24] Further, the state has the power to define what constitutes the practive of any profession and may then confine practitioners of various health disciplines to the particular system of practive in which they have been educated.[25]

This is a logical stance for the legislature to take. If the legislature has an avowed interest in protecting the public,[26] it must make some attempt at defining the scope of appropriate practice which each class may safely employ and to license those within each class to practice upon the public only those skills for which they have demonstrated competent training. That includes courses, testing and most important of all, clinical experience under supervision. This is the legislative intent in enacting licensing statutes.[27] This reasoning is followed with consistency in cases involving almost every viewpoint and aspect of health care.[28]

Great latitutde is given by the courts to the legislature in defining its public health goals. However, the goal is universally stated to be the protection of public health. Health legislation is not passed to promote the personal ends of individuals or to enhance the status or prestige of any given class of practitioners.[29] Although the legislature may enact such regulatory legislation as it may consider necessary, there must be a rational basis upon which the legislative determination rests.[30] This cannot be interpreted as meaning anything less than that such legislation must appear to be rationally directed toward the achievement of the stated legislative goal and to be reasonably rational in the means which it seeks to achieve that goal.

is made with 'whole body' disease/function. The eye is studied in isolation as an optical instrument. To use an analogy, an operating room nurse could teach an optometrist about eye surgery, just as a pharmacologist Ph.D. can teach an optometrist about pharmacology. However, no one would want an optometrist to perform surgery with an education based only on lectures and theoretical familiarity with the subject. The prescribing and using of drugs, just like the performance of surgery, must be founded on a broad-based curriculum involving many hours of supervised clinical experience using drugs. To allow any health care provider to practice with only limited classroom experience and testing violates the legislative duty to protect the public from risk of incompetency from lack of clinical experience.[43]

As a second step, the legislature can require continuing education for those practitioners who have already completed broad formal training upon which additional, up-dated information may be rationally correlated. This type of post-graduate instruction always preseumes in-depth background knowledge. It is used to present newly altered clinical concepts or additional practical experience (e.g., using operating microscopes, intraocular lens implants, vitrectomies, etc) for those practitioners with clinical experience sufficient to allow them to understand the usefulness or pitfalls, to see the advantages or clear disadvantages, to comprehend the clinical reliability or dangers of the material which the course is presenting. Crash courses which involve totally new material, presented to practitioners without that clinical judgement or experience necessary to actually grasp the real impact of the data presented, let alone the nuances, can be expected to create clinicians who will test their newly acquired knowlege in the public sphere. The hazards of such an appraoch are obvious. Again, such an approach does not satisfy the legislative duty to <u>reduce</u> public risk.

I must conclude that for the state to allow graduates of optometric schools, who are unarguably well-trained in the limited sphere of practice which optometry has exercised to date, to extend their

a) Goal - As noted above, the frequently given objective for regulation of health care providers is the protection of the public from incompetent practitioners.[31]

This goal is stated to exist even if it deprives a citizen of a right he otherwise might enjoy in the pursuit of his profession.[32]

This reasoning leads to the conclusion that the legislature has the duty to ensure that its acts and statutes do not tend to increase public exposure to health risk.[33] The stated legislative goal is increased public protection, not increased public risk. Nowhere does case law state that public protection will be qualified - i.e., that the legislature may increase the risk "a little bit", but not "a lot". No such slippery subjective terms appear. The intent is protection. The language is explicit.

b) Means - The means by which the legislature attempts to arrive at its stated goal must be reasonable and rational.[34] The means which have been used by all states to regulate the professions have been noted above. The states have attempted to ensure the competency of each practitioner and then limit each to the area of practice embraced within the training which that practitioner has received.[35] If this means anything, it must mean that before the provider is allowed to administer to an uninformed public, (45% of the public does not know the difference between an ophthalmologist and an optometrist)[48] he must provide evidence of training sufficient to ensure the public from health care which is inadequate. Such inadequacy can range from innocuously improper diagnoses which are nonetheless economically costly, to disabling or fatal mistakes in clinical judgement - either diagnostic or the end result of therapeutics.

Insofar as it can ever be sure of the quality of professional performance, the state has two related ways to oversee clinical performance.

The state may require evidence of formal professional training which has as its foundation and primary goal, a strong commitment to an understanding and clinical application of those methods, techniques and material to which the public will be exposed and which will place it at risk. Such training must satisfactorily convince the legislature that which it certifies the practitioner, the legislative duty to prevent risk of public harm has been met.

Using the data presented in the first portion of this testimony, it is apparent that optometric training as it now exists in the State of Alaska is not directed toward a broad understanding of human pathology/physiology/pharmacology with supervized clinical experience.[43] Training is limited to a superficial, most theoretical, presentation of data concerning ocular dysfunction with inadequate clinical supervised experience. Not only do the data show that the instruction given the optometric student is very limited, but little or no integration of visual disease/function

clincial practice to include the application of drugs to the eye would be an irrational approach toward the protection of public health.[43] If the curricula of optometric schools demonstrated sufficiently integrated instruction in human anatomy/pharmacology/physiology/pathology to provide the optometric graduate with an adequate basis for making appropriate clinical decisions of diagnosis, then such a legislative extension of clinical opportunity, and responsibility would be reasonable. Crash courses are not an adequate substitue[38] for many hours of supervised clinical experience.[43]

It should be repeated that the strong interest of the state in protecting the public, has traditionally and appropriately placed rigid conditions and restrictions upon the right to affect public health.[39] It should also be repeated that this power to restrict health care practice is recognized as proper regardless of its effect upon the economic interests of those regulated.[40]

It is doubtfull that an informed public would voluntarily accept a role as an on-the-job training clinical practice model so that the optometrists can gain the clinical experience needed to use drugs. The consumer public currently has expectations which include a higher standard of knowledge by the medical service provider than ever before. These expectations directly flow from the public's increased understanding that they each, as individual complex biologic units, are biochemically affected in manifold ways via the environment, foods and drugs. Any legislative change which would franchise greater administration of drugs and which simultaneously does not require firm, convincing evidence of a profound understanding of the disease to be detected, its effect on the human body, the biochemistry of the drug to be used, ignores the public right to be protected from incompetency and the public right to make decisions concerning its health care. The public has a right to understand that any practitioner, presuming to diagnosis ocular disease that usually have total body manifestations, is making diagnostic decisions based upon training which comprehends all of the above principles.

IV. AGENCY ACTION FOR ASSURRANCE OF THE HIGHEST QUALITY EYE CARE FOR THE CONSUMER.

The public should be able to rely upon state certification of competency. Legislation which does not demand evidence of such competency before certification fails in its duty to provide public protection in matters of health.

Currently, states have little control over the calibre of training which optometrists acquire prior to licensure. An optometrist may have trained in an optometric school unaffiliated with any medical center, he may have obtained the minimal training necessary to qualify for graduation, but once having graduated, he can apply for and obtain a license with ease.[41]

The State Board of Optometry certifies the competency to use drugs of those optometrists which it approves for licensing.[42] Two problems are immediately apparent:

1) The members of the Board of Optometry have little personal experience in ocular pharmacology, ocular pathology, and diagnosis. They are themselves graduate of optometry schools which have offered limited training because the board members took their training when little time was devoted to course work in pharmacology, and now have little experience with drugs. It is difficult to see how such a Board can adequately evaluate such clinical ability in optometric applicants for licensure, nor is it clear how such a Board can construct any 'refresher' course that would adequately prepare the optometrist for his broadened responsibilities. What is usually used is a 'canned' course, prepared elsewhere.

2) The ability of the Board to carry out its mandate to protect the public from those few individuals that would use these diagnostic drugs also as theraputic drugs would find themselves in a frustrated position. The Board can do nothing to prevent this and the fine for practicing medicine without a medical license is only $100.00.

The regulation of the profession by the Optometric Board will be considered appropriate so long as it is reasonable and necessary in the interest of health, safety of the people.[44] Licensing of optometrists by a Board itself lacking in the necessary qualifications to evaluate clinical performance and knowledge, is manifestly unreasonable. To grant the right to optometrists to use diagnostic drugs who are poorly qualified to do so, is not a reasonable, or an appropriate, or a necessary means of 'protecting'the public health.

The regulation of the practice of optometry is not for the benefit of the licensee, but for the state and its people.[45] Certainly, if the practice of medicine and surgery is a proper subject for careful and precise legislation, so also should be legislation which concerns eye care and those who provide it to the public.[46]

V. CONCLUSION

Having looked critically at the past trend toward the expansion of optometric sercies into medical care, and with the present trend of more and more states defeating this kind of bill, it is proper that some statement be made regarding an appropriate role for this vision care professional.

If the optometrist will be expected to diagnose eye disease, then one of two events must occur:

1) optometric training must be upgraded substantially enough to provide him with clinical expertise sufficient to satisfy appropriate public expectations of high competencey; or

2) optometrists must work in an association with ophthalmologists close enough to provide for the day-to-day transmission of diagnotic information from the M.D. to the O.D., and allow the latter to obtain practical involvement in treatment rationals and administration. This would be similar to the military, Veterans Administration and Alaska Native Service, where the optometrist use these drugs under the direct supervision of the ophthalmologists.[47]

Having once recoginzed the above solutions two problems immediately present themselves. The first solution would require the relocation of optometric schools to permit integration with medical training and include a complete restructuring of optometric training. So much change would be needed that any difference between the ophthalmologist and optometrist would evaporate. However, if any group of practitioners presumes to medically minister to the public it must accept the rigorous training which must preceed such responsibility. There is no quick and easy path to competent understanding of a subject becoming increasingly complex year-by-year. The optometrists seem to want to become doctors, but do not want to go through the extensive number of years training it requires. This is particularly true when the results of error or incompetency can be blindness.

The second solution, close day-to-day association of optometrist/ophthalmologist, creates a psychological hurdle - perhaps an economic one as well. Optometrists would be required to visualize themselves in a supportive role. This is difficult for any professional to do, especially if he has historically been conditioned to see himself as a member of a separate group, practicing independently. So long as he can offer only limited eye care, he is in a supportive role to those who offer complete eye care. This cooperative association is currently working well in the Veteran's Administration System, the military and the Alaska Native Service It could work well in private care.

Finally, if state legislatures believe that it is proper to expand the medical opportunities of this health-care group of practitioners via redefinition and short-course catch-up lectures without restructuring fundamental educational requirements and experience, there can be little rationale for not doing the same for <u>all</u> paramedical groups, e.g. naturopaths, acupuncturists, and faith healers.

Rationally, the legislature must either strictly require very high state-of-the-art medical training standards to protect its citizens or it should minimize that responsibility and lower its standards to permit each group to economically advance at the public expense. The latter practice would also reduce the educational time and

experience required to produce specialist M.D.'s- but, of course, such physicians would be recognized as marginally or totally incompetent. Should the standard be any different for optometrists who wish to medically diagnose eye disease that is so closely linked with the body as a hole functioning unit?

Thank you for your time and the opportunity to present this view indorsed by the State Ophthalmologic Association.

FOOTNOTES:

1 - Worthen: The Ophthalmologic-Optometric Interface. Transactions of American Academy of Ophthalmology and Otolaryngology *3:OP-155, 1977

2 - Representativ of most ophthalmology residency programs, it is that of the University of Minnesota, Mayo Clinic Graduate School of Medicine. Following graduation from Medical school and a general or specialty internship, the resident enters a program which requires 65 hours a week of ophthalmologic instruction; of this, approximately 8 hours a week is devoted to formal, diadactic lecture, the remainder is clinical or laboratory activity. This weekly schedule continues over a twelve month academic year, for three years. Some of a nine month written home study course administered by the Academy of Ophthalmology. Some programs require an additional one year of ophthalmology. Department of Ophthalmology, University of Minnesota, Mayo Clinic Resident 1974-1977.

3 - Curriculum, University of Minnesota College of Medicine. The basic curriculum required of any candidate for an M.D. degree includes 128 credit hours of 'medical' subjects; this does not includ clinical studies which are specifically directed toward a specialty interest. Although optometrists may agrue that these requirements are not appropriate for them, such an analysis ignores the fact that in expanding their role into the practice of medicine optometrists should be subjected to the same educational requirements. Unfortunately, there is no short-cut to professional competence. This is particularly ture in the rapidly expanding and complex field of medicine. The public has a right to demand strict legislative requirements before practitioners are certified as competent.

4 - Worthen, note 1, OP-158, supra.

5 - Trapnell, The Impact of National Health Insurance on the Use and Spending for Sight Correction Service, 1976. (This study was underwritten by the American Optometric Association, and the Optical Manufactures Association.) It reveals that optical device sales represent 66% of the funds expended for optometric services and 19% of funds expended for ophthalmologist services, at Tabel 1 of the Trapwell Study.

6 - This figure includes $920 million spent for optician and $220 spent by institutions. Those categories of service providers are not included in this discussion since they are not involved in patient care.

7 - This economic impact will be divided not only by optometrist and ophthalmologists, but also by opticians and lens/fram/contact lens manufacturers.

8 - Worthen, note , Op-157, supra.

9 - On Blue Shield Survey: In 1975, actuaries for Blue Shield in Connecticut requested of optometrists data necessary to project the cost of insurance covering optometric examinations. One hundred sixty six out of 266 active optometrists responed listing their age, number of years in practice, and number of eye examinations performed each year, and the cost of an eye examination, exclusive of the cost of glasses, so called service charges or visual training. Similar data was gleaned from ophthalmologists. It was concluded that the average optometrist see 23.3 patients per week. Exclusive of patients seen for medical surgical problems or for follow-up care, the average ophthalmologist, of whom there are 160 in Connecticut, sees 56 patients per week for complete eye examinations. Also, if this patients per examiner data is carried over to fit national figures for the number of practicing O.D.'s and ophthalmologists it indicates that about 60% of the primary eye care is rendered by ophthalmologists in the United States right now.

A report prepared for the Optical Manufacturers Association by a consulting actuarial firm (Trapnell Report-1975) presented data based upon national surveys conducted in 1975. The reporters estimated that approximately one-half of 50 million professional eye examinations were done by ophthalmologists and one-half by optometrists. This report dealt only with persons seeking entry into the eye services field for so-called "sight correction" services and did not count all of the services provided by ophthalmologists otherwise for persons who seek out an ophthalmologists otherwise for persons who seek out an ophthalmologist for treatment of medical and surgical problems. (Ophthalmologists obviously do 100% of significant eye surgery and treatment of major eye disease) It is remarkable to note that even though there were approximately 10,000 practicing ophthalmologists, as compared to 20,000 optometrists in the United States, that half of the 50 million so-called "routine eye exams" were performed by ophthalmologists during the year 1976.

10- Department of Commerce and Occupational Licensing

11- Obviously, where ophthalmologists are rare, optometrists see the bulk of patients. However, public education, assistance with payment of medical bills via Medicare and Medicaid, the high mobility of todays population, and the trend toward urban population clustering near ophthalmologists and other specialists certainly influence this bias toward ophthalmologists.

12- R.C.W. 18.53.005 Legislative Declaration: "The legislature finds and declares that the practice of optometry is a learned profession and affects the health, welfare and safety of the people of the this state, and should be regulated in the public interest and limited to qualified persons..." (Amendment 1975)

13 - Ellstad v. Swayze, 15 Wash. 2d281, 130 P2d 354 (1942). See also, Ketchum v. King Co. Medical Service Corp., 81 Wash 2d 565, 502 P2d 1197, 1200 (1973)

14 - Swayze, note 13, 353, supra.

15 - Kelly v. Carroll, 36 Wash 2d 482, 219 P2d 79, 90. (1950)

16 - Campbell v. State, Id., at 462

17 - Gellhorn has recently argued that state licensing statutes are in fact attempts by the profession or occupation involved to control competition by means of restrictive admission to practice. Even Professor Gellhorn would admit that the licensing of health professions is necessary and probably rises above such critisism. Gellhorn, The Abuse of Occupational Licensing, 44 University of Chicago L.R.6, 1976.

18 - Semmler v. Oregon State Dental Examiners, 294, U.S.608, 611, (1934);State v. Wilson, 11 Wn. App. 916, 528 P2d 279 (1974)

19 - R.C.W. 18.53.140

20 - Laughney v. Maybury, 145 Wash. 146, 259 P.17 (1927)

21 - Ellstad v. Swayze, note 47, 353, supra, Accord. Dantzler v. Callison, 230 S.C. 75, 94 WE 2d 177, app. dismd. 352 U.S. 939(195

22 - Kelly v. Carroll, note 15, 85, supra.

23 - Art. 20, 2

24 - Ellstad v. Swayze, note 13, 353, supra.

25 - State v. Bonham, 93 Wash 489, 161 P 377, 379 (1916)

26 - Kelly v. Carroll, note 22, supra.

27 - State ex rel Fleming v. Cohn, 12 Wash 2d 425, 121 P2d 954 (1942) Accord, State v Hauk, 32 Wash 2d 68;. 203 P2d 693(1949)

28 - 61 Am Jan 2d, Physicians, Surgeons, and other Healers, 19;86 ALR 623, 624

29 - Ex parte Whitly, 144 Cal. 167, 77 P 879 (1904)

30 - "It is enough that...it might be though that the particular legislative measure was...rational..." Williamson v. Lee Optical Co., 348 U.S. 483, 488 (1955), Douglas, J., majority opinion)

31 - See note 15, supra.

32 - Campbell v. State, note 15, supra.

33 - "A law which reduces or prevents any increase in an ...evil tends to safequard the public welfare..." Id. at 462. (emphasis added).

34 - Williamson v. Lee Optical, note 29, supra.

35 - State v. Houc', note 27, 700, supra.

36 - Worthen, note , Op-160, supra.

37 - "...the legislature was careful to require definite knowledge

38 - West Virginia Statute 30-8-5 requires those optometrists who wish to use drugs to complete those requirements which the board of optometry may see fit to extablish. The board of optometry requires attendance at a pharmacology course similar to that described in note 43, infra.

39 - Ellstad v. Swayze, note 13, supra.

40 - Campbell v. State, note 15, supra.

41 - R.C.W. 18.54070

42 - R.C.W. 18.54.030 - In fact, the statute excludes from board membership any optometrist "...who has any connection with any school...of optometry..." It could be presumed that optometrists teaching at optometric schools would be best qualified to judge the qualifications of optometric candidates and possess the most crrency in clinical information.

43 - A letter from Leon Candenb, O.D., Director Pennsylvania College of Optometry describes the lecture outling in pharmacology used by Kentucky, Florida, Pennsylvania and New Mexico. This course involves participation by the optometrist in six weekend sessions (Saturday and Sunday) and ends with a three hour examination covering the presented material. A letter from Sam A. McConkey,M.D to the Honorable Charles Parr:

ON OPTOMETRISTS PRACTICING IN THE STATE OF ALASKA

According to figures obtained in February of 1978 from the Department of Commerce, Division of Licensing, there are 40 licensed optometrists in Alaska. Their educational background is as follows:

24 attended Pacific University College of Optometry(1951-1976)
5 attended Illinois College of Optometry (ICO)
4 from 1948 to 1960 and 1 graduated in 1977
3 attended Southern College of Optometry
2 attended the University of Houston College of Optometry
1 attended Southern California College of Optometry
1 attended Los Angles College of Optometry (No longer listed as an optometric school)
1 attended Northern Illinois College of Optometry (No longer listed as an optometric school)
In one case, it is unkown to the Department of Commerce where he went to school.

The following is a summary of pharmacology training at these various institutions.

Pacific College of optometry has NO M.D., PhD., or anyone with a masters or bachelors degree in pharmacology teaching at that institution.

Illinois College of Optometry, prior to 1960, had NO M.D., PhD., or anyone with a masters or bachelors degree in pharmacology teaching. The one graduate of 1977 may have been taught by one professor in the category of PhD. or masters or bachelors degree.

Southern College of Optometry has NO M.D., PhD., or anyone with a masters or bachelors degree in pharmacology teaching at that institution.
University of Houston College of Optometry has NO M.D., PhD., or anyone with a masters or bachelors degree in pharmacology teaching at that institution.
Southern California College of Optometry has NO M.D. teaching in pharmacology; has two instructors listed as either a PhD. or masters or bachelors degree.

It follows that at least from all the available evidence, the maximum number of optometrist in the state that had any pharmacology training from any qualified instructor at all, is two; one from the Illinois College of Optometry who graduated in 1977 and the one graduate of Southern Calidfornia College of Optometry. It appears that the maximum number of optometrists in the state that had any pharmacology training from any M.D. or M.D./PhD. in pharmacology is zero.

The maximum number of optometrist in the state that had any instruction at all from any full-time M.D. on the staff of the school is zero.

The maximum number of M.D.'s in even a part-time capacity on the staff of any school attended by 37 of the 40 optometrists in Alaska, is two. From a survey of the Blue Book of Optometry which was last issured in 1976, it appears that the maximum number of members of the State Board of Optometry that even have a bachelors degree from any school is two of the six board members that are listed. It would seem reasonable that there would be an ophthalmologist either in the teaching or in the clinical aspect of optometric education, but it appears from the available evidence, that the maximum number of optometrists currently practicing in Alaska that had any full or part-time instruction, either by lecture or in the clinical setting by an ophthalmologist is zero.

44 - State v. Spino, 61 Wash 2d 246, 377 p2d 868, 870 (1963)

45 - Pennington v. Benelli, 15 Cal App 2d 316, 59 P2d 448

46 - Campbell v. State, note 15, 466, supra.

47 - The AAO Nove-Dec. 1977. "AGREEMENT REACHED ON DEFINITION OF MILITARY OPTOMETRIST- The army, Navy and Air Force have agreed on a common definition limiting the services optometrist may render to military personnel. Prior to the new definition, the three military branches had differing definitions which the AAO mailed to all state ophthalmological societies earlier in the year. On June 15th James W. Foristel, AAO Congressional Liason, met with Robert Smith, M.D., Assistant Defense Secretary for Medicine, who was attempting to have all three of the service's Surgeons General agree on a common definition. In September, they reached agreement on the following single definition.

'The optometric clinic provides optometric patient services under medical supervision. Optometrist examine the eyes and

adnexa to include refraction and other procedures, prescribe lenses to correct refractive errors and imporve vision. They refer patients to physicians for diagnosis and treatment of suspected disease. Optometrists use appropriate drugs to perform optometric procedures. When using these drugs, immediate medical care is available in the event of adverse reaction.'"

TABLE A. EXAMINING ELEMENTS THAT INDICATED OPHTHALMOLOGIC DISEASE IN 716 PATIENTS.

HISTORY	255	(35.6%)
VISUAL ACUITY	198	(27.7%)
EXTERNAL EXAMINATION BY HAND-HELD FLASHLIGHT	157	(21.9%)
REFRACTION	4	(.6%)
TONOMETRY	69	(9.6%)
SLIT LAMP	23	(3.2%)
UNDILATED FUNDUS	9	(1.3%)
DILATED FUNDUS	1	(.1%)
	716	100%

TABLE I

SYMPOSIUM ON LEGISLATION

PH. D. THESIS BY DON C. PEARSON, M. D. - APRIL 28, 1977 - WORTHEN
THE OPHTHALMOLOGIC OPTOMETRIC INTERFACE T. A. A. O. O. 1977

Comparison of Optometry and Ophthalmology

	Optometrists	Ophthalmologists
1 - License	In all states as optometrists	In all states as Physicians and Surgeons
2 - Prerequisite	2 yrs. of college (60% of beginning students have baccalaureate degree or higher	Graduation from Medical School (M.D.) 3 - 4 years College
3 - Curriculum	School or College	Medical school internship, Postgraduate (residency)
Pharmacology	64 hours* 126 hours **	307*** (187 hrs. general with 18 months clinical and 120 hrs. ocular with 4yrs. 6mo. clinical
Pathology	20-60 hours	200 hours general with 3 years clinical and 148 hours ocular with 3 years clinical
4 - Period of training	4 yrs (34-36 months)	3-5yrs. (36-60 months)
5 - Time for education after high school	6-8yrs (54-72 months) Max. 4yr. undergrad. Max. 4yr. Opt. college	11-14yrs. (120 months)
6 - Number of active practicioners	21,900	9,322
7 - Number of students	4,985	1,914 (residents)
8 - Total number of practitioners and students	24,933	10,496
9 - Total number of eye professionals	24,800 (70% of total)	10,629 (30% of total)

* Mr. George Hall's report on Pennsylvania School of Optometry to March 1, 1978 meeting of Legislative Coalition of Health Care Professionals.

** 126 hours - Southern College of Optometry

*** Mayo Clinic and Iowa

TABLE 1A

OPTOMETRIC EDUCATION DEFICIENCY DOCUMENTED FOR REDBOOK SURVEY
As prepared by John W. Gamel, M. D.
University of Louisville School of Medicine

EDUCATIONAL BACKGROUND REQUIRED FOR DELIVERY OF EYE CARE:

Comparison between Optometry and Ophthalmology*

REQUIREMENT	OPTOMETRY	OPHTHALMOLOGY
Admission	2 years of college	4 years of college plus 4 years of medical school
Total Training after High School	6 years	12 years
Class and Laboratory Time	1,650 hours	3,249 hours
Supervised Practice of General Medicine (Internal Medicine, General Surgery, Obstetrics-Gynecology, Psychiatry, Primary Care)	0 hours	3,240 hours
Supervised Practice of Medicine and Surgery of the Eye	0 hours	5,240 hours
TOTAL TRAINING HOURS	1,650 hours	11,739 hours
Number of years during which training occurred	4 years	7 years
Hours per year	412½ hours	1,677 hours

*Information abstracted from:

1. Course Handbook of Indiana University, Division of Optometry, 1975-76.
2. American Association of Medical Colleges Curriculum Directory, p. 86 87 (re: University of Louisville School of Medicine.)
3. Residency Training Schedule, Department of Ophthalmology, University of Louisville.

TABLE Ib

BREAKDOWN OF HOURS SPENT IN EDUCATION OF OPTHALMOLOGIST

1.	Class & Laboratory:		
	Medical School		
	1st year	871	
	2nd year	748	
			1,619
2.	Residency:		
	Lectures:		
	5 hrs per wk x 150 weeks	750	
	Basic Science		
	40 hrs per wk x 10 weeks	400	
	Home Study		
	20 hrs per mo x 24 mos	480	
			1,630
	TOTAL DIDACTIC TRAINING (HRS.) (1 + 2)		3,249
3.	Supervised Practice of General Medicine 54 wsk x 60 hrs. per wk (includes night calls & weekends)		3,240
4.	Supervised Practice of Medicine and Surgery of the Eye 35 hrs per wk x 150 weeks		5,250
	TOTAL TIME SPENT IN SUPERVISED PRACTICE (HRS.) (3 + 4)		8,490
	TOTAL TIME SPENT IN FORMAL EDUCATION OF OPHTHALMOLOGIST AT THE UNIVERSITY OF LOUISVILLE (HRS.) (1 + 2 + 3 + 4)		11,739

RESIDENCY TRAINING SCHEDULE, DEPARTMENT OF OPHTHALMOLOGY
UNIVERSITY OF LOUISVILLE SCHOOL OF MEDICINE

Summary of Hours of Didactic Learning Offered During Residency:

Ongoing Lectures:

Monday, a.m.	1 hour
Tuesday, a.m.	1 hour
Thursday, a.m.	2 hours
Friday, a.m.	1 hour
TOTAL:	5 hours per week

Basic Science Courses:
40 hrs. per wk lectures/labs
Duration: 10 weeks

Home Study Course:
20 hrs per month
Duration: 24 months

TABLE 2

PH. D. THESIS BY DON C. PEARSON, M. D. - APRIL 28, 1977 - WORTHEN
THE OPHTHALMOLOGIC OPTOMETRIC INTERFACE T. A. A. O. O. 1977

Service offered by Optometrist and Ophthalmologist

Service	Optometrists	Ophthalmologists
Refraction	99%	99.5%
Ophthalmoscopy	92%	99.5%
Contact Lenses	79%	58%
Visual Fields	75%	94%
Tonometry	66%	99.5%
Orthoptics	50%	53%
Low-vision aids	40%	55%
Biomicroscopy	32%	99.5%
Aniseikonic Testing	8%	9%
Treatment of eye disease	1-2%	100%
West Virginia and North Carolina		
Surgery	0%	99%

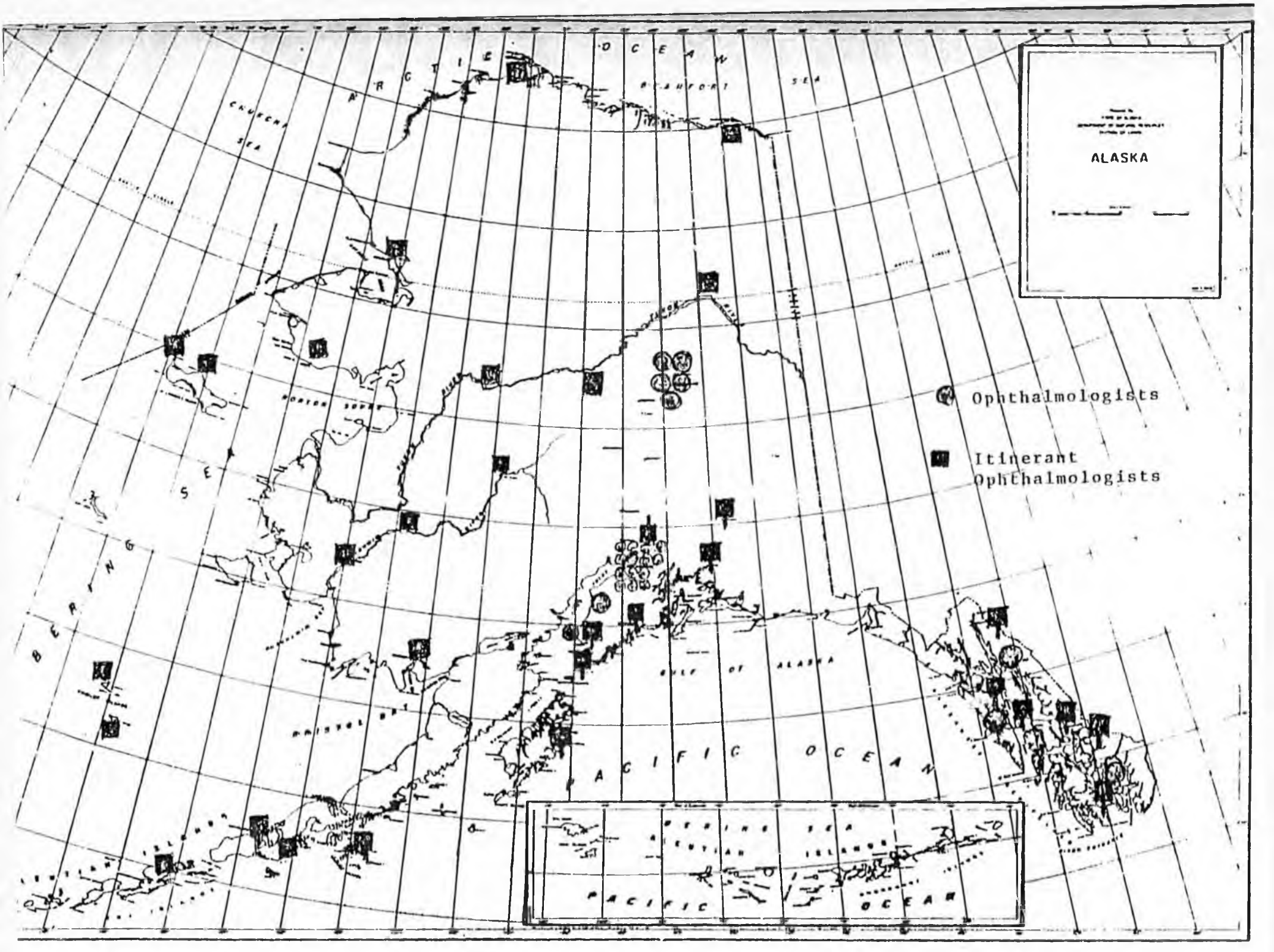
ALASKA
Ophthalmologists
Itinerant Ophthalmologists
ARCTIC OCEAN
BEAUFORT SEA
CHUKCHI SEA
BERING SEA
GULF OF ALASKA
PACIFIC OCEAN
ALEUTIAN ISLANDS
BERING SEA
PACIFIC OCEAN

TABLE 3

CIVILIAN CONSUMER SPENDING FOR VISION CARE AND SIGHT CORRECTION SERVICES IN 1975

	OFFICES OF OPTOMETRISTS	OFFICES OF OPHTHALMOLOGISTS
A. Expenditures		
General examinations	$525	$510
Medical treatment and therapy	40	500
Ophthalmic Services:		
Corrective Eye glass Lenses	865(49.6%)	180(14%)
Contact Lenses	285	60
Other	30	
	1,745	1,250
		No optical shops No surgery

Reprinted from

Virginia Medical

November, 1979

How the General Practitioner Can Determine The Need for Ophthalmologic Referral

Henry S. Campell, MD, *Martinsville, Virginia*

WHEN should a patient be referred to an ophthalmologist? Are eye drops and sophisticated instruments needed to make the referral decision? These questions are crucial to the proper care of eye problems, whether the patient presents initially to a physician or to a non-medical practitioner.

This study delineates the ways in which the possibility of visual system disease can be recognized in non-ophthalmologic office practice.

Method

The author, an ophthalmologist practicing in a semi-rural area of Virginia, documented 1,000 consecutive office patient visits from October 9, 1978, through December 14, 1978. Each of these visits was classified into one of three groups: no disease, new disease, and old disease. No disease meant that the patient had no significant complaints, may or may not have required glasses for normal visual acuity and had no findings of a significant medical problem. New disease meant that the patient gave a history suggesting significant visual system disease and/or was found to have significant visual system disease; new disease patients had not been seen or treated previously for this problem by the examiner or by his partner ophthalmologist. Old disease patients had a significant visual system disease which had been seen and/or treated previously by the examiner and/or by his partner ophthalmologist. Patients with concomitant old and new disease problems were classified according to the new problem. Patients with more than one old disease problem were classified according to the more serious problem.

Address correspondence to Dr. Campell at PO Drawer 3151, Martinsville VA 24112.

Submitted 1-12-79.

All patient examinations included history, visual acuity, external examination, slit lamp biomicroscope examination and a view of the fundus oculi through undilated pupils. Tonometry was done in all adult patients without infection. A dilated fundus examination was done in all patients scheduled for a routine examination plus those patients where history and/or other examination indicated the need. Visual field examinations were done where indicated.

Results

In a mature ophthalmologic practice, one expects to see relatively few patients without disease. Indeed, the examiner in this study saw only 284 patients (28.4%) without disease and 716 (71.6%) with disease. In the diseased group, 491 (65.6%) were already under observation or treatment.

Table 1 lists the means by which disease was suspected. Notice the heavy preponderance of history, visual acuity, and external examination by hand-held flashlight as the initial clues to disease. These three are, of course, different facets of the same stone and could well be combined, i.e., if a patient states that he does not see well, and if his visual acuity is indeed decreased, then the patient's history is confirmed. In 610 (85.2%) of the 716 patients with disease, this triad

Table 1. Examining Elements That Indicated Ophthalmologic Disease in 716 Patients.

History	255	(35.6%)
Visual Acuity	198	(27.7%)
External Examination by Hand-Held Flashlight	157	(21.9%)
Refraction	4	(.6%)
Tonometry	69	(9.6%)
Slit Lamp	23	(3.2%)
Undilated Fundus	9	(1.3%)
Dilated Fundus	1	(.1%)
	716	100%

indicated visual system disease. Refracting four high myopes or noticing thick spectacle lenses would have indicated the need for careful indirect ophthaloscopy for peripheral retinal abnormalities.

The majority of patients with new disease presented with acute processes, such as infection, iridocyclitis, foreign bodies and the like; here history, visual acuity and external examination by hand-held flashlight again gave the clue. Those patients with old disease had chronic disorders such as cataracts and glaucoma; for these, tonometry and slit lamp examination added meaningful information. The 69 patients found to have glaucoma could have been suspected of the disease by using Schoitz tonometry or non-contact "air puff" tonometry. The nine patients found to have optic atrophy, glaucomatous cupping, diabetic retinopathy, and macular degeneration were suspected by viewing the fundus oculi through the undilated pupil.

Slit lamp biomicroscopic examination gave the clue in 23 of the 716 patients with disease, mainly for diseases of the cornea, silent iridocyclitis, and potential narrow-angle glaucoma. Two new and seven old patients with potential narrow-angle glaucoma were seen. Dilating the pupils of these nine patients could have precipitated disastrous attacks of acute narrow-angle glaucoma, and mydriatic eye drops were distinctly contraindicated.

An asymptomatic superior retinal hole was found in one patient because the history of retinal detachment in the other eye made an extraordinarily diligent search of the retina mandatory. Without this history and with only a routine examination of the retina, the hole would have been missed by the examiner.

Only one patient had a significant abnormality which was not suspected prior to dilating the pupil. Although her benign choroidal nevus was known to her from an examination about one year prior, she did not reveal this to the examiner initially.

Table 2 sums up how disease was suspected in the 716 patients found to have visual system problems.

Table 2. How the Non-Ophthalmolgic Practitioner Could Have Determined the Need for Ophthalmolgic Referral in 716 Patients.

History, visual acuity, external examination (the basic medical triad)	610/716	(85.2%)
History, visual acuity, external examination, undilated fundus	619/716	(86.5%)
History, visual acuity, external examination, undilated fundus, tonometry	688/716	(96.1%)
History, visual acuity, external examination, undilated fundus, tonometry, noticing thick spectacle lenses	694/716	(96.6%)
History, visual acuity, external examination, undilated fundus, tonometry, noticing thick spectacle lenses, slit lamp	715/716	(99.9%)

NOTE: In nine of the above 716 patients, dilation of the pupil with eye drops could have induced an attack of acute narrow-angle glaucoma.

Conclusions

How, then, can the non-ophthalmolgic practitioner know when a patient should be referred to an ophthalmologist? Most often, the study shows, through the basic medical triad of history, visual acuity, and looking at the external eye with a flashlight. Family physicians can take heart at this. And they may be cheered as well to know that the success of this triad obviates the need for sophisticated instruments: In only 23 of the 716 patients suspected of having disease was an instrument required that is not in the office of most physicians, namely, a slit lamp.

As for eye drops, the recommendation is BEWARE. Eye drops can, in certain cases, change a chronic visual problem into a dangerous emergency. Nine patients seen in this study, as noted, had the potential for acute narrow-angle glaucoma, and dilating the pupils of any of these nine patients could have produced an extreme emergency in the office of the general practitioner or non-medical optometrist. Moreover, eye drops may precipitate alarming side effects; in the course of this study two patients with corneal foreign bodies became faint, with decrease in blood pressure and nausea, after application of topical anesthetic drops (although neither patient had a seizure or total loss of consciousness).

In sum, to both the conscientious physician and the conscientious optometrist the need for referral of a patient to an ophthalmologist is usually obvious through the application of history, visual acuity, and external examination by hand-held flashlight, and does not require sophisticated instruments.

Most importantly, do not dilate the pupil. Routine tonometry according to established standards and viewing the fundus oculi through the undilated pupil are the additional needed methods. The use of mydriatic drugs to dilate the pupil risks precipitating acute narrow-angle glaucoma by a 9:1 ratio over uncovering any hidden disease process.

Acknowledgment

The author thanks Donald W. Richman, MD, and Douglas M. Rampona, MD, for their assistance and advice.

THE PEN...

WHO TEACHES OPTOMETRISTS MEDICINE?

CURRENT SCHOOL CATALOG STUDY COMPARES FACULTIES AT SEVERAL TYPICAL MEDICAL AND DENTAL SCHOOLS WITH FACULTIES AT ALL OPTOMETRY SCHOOLS IN THE U.S.

MEDICAL COLLEGES	Total # of Students	Total # of Faculty	Faculty Student Ratio	Total # of M.D. Professors (Full or Part Time)	Full Time Clinical* Teaching M.D. Specialists	OPHTHALMOLOGISTS (M.D. Eye Specialists)			PHARMACOLOGY DEPARTMENT		O.D.s	O.D./Ph.D.	Other Ph.D., M.S. or B.S.	COMMENTS
						Full Time	Part Time	M.D. Residents	M.D.s - M.D./Ph.D.	Ph.D., M.S. or B.S.				
Medical University of South Carolina College of Medicine	660	1,281	1.9	651	201	3	23	9**	6	25	0	0	630	* CLINICAL — Refers to working with patients in hospitals or out-patient clinics ** Ophthalmology Residents spend 3 months during their 3-year residency in an intense basic science course taught by nationally prominent Ophthalmologists at Colby College, Waterville, Maine
Duke University College of Medicine	489	1,102	2.3	632	483	8	10	16	2	7	0	0	470	
Medical College of Georgia	720	944	1.3	495	246	3	10	8**	2	10	0	0	449	
DENTAL COLLEGES														
Medical University of South Carolina College of Dentistry	160	312	2.0	74	0	0	0	0	6	25	0	0	123	84 D.D.S. teaching mostly Clinical 9 are D.D.S., Ph.D.
Medical College of Virginia College of Dentistry	439	353	.80	33	0	0	0	0	8	20	0	0	127	126 D.D.S. teaching mostly Clinical 20 are D.D.S., Ph.D.
COLLEGES OF OPTOMETRY														
Southern College of Optometry	604	49	.08	2 PART TIME	0	0	0	0	0	0	37	2	7	The 2 part time M.D.s are classroom lecturers in Pathology.
Illinois College of Optometry	600	56	.09	1 PART TIME	0	0	0	0	0	1	47	1	6	The only M.D. is a part time Lecturer in Pathology.
Pennsylvania College of Optometry	552	89	.16	5 PART TIME	0	0	2	0	0	1	55	4	17	
Southern California College of Optometry	384	83	.22	5 PART TIME	0	0	2	0	0	2	65	5	8	
Pacific University College of Optometry	340	23	.07	1 PART TIME	0	0	0	0	0	0	12	1	8	The only M.D. is a Professor of Physics and Optics, part time.
New England College of Optometry	332	66	.20	4 PART TIME	0	0	2	0	0	1	52	5	4	
University of Houston College of Optometry	284	64	.23	2 PART TIME	0	0	0	0	0	0	47	4	7	The 2 part time M.D.s are Classroom Lecturers in Pathology.
Indiana University College of Optometry	276	38	.14	0	0	0	0	0	0	0	21	4	11	No M.D.s on Staff.
Ohio State College of Optometry	228	63	.28	1 PART TIME	0	0	1	0	0	0	46	4	12	The only M.D. is part time. He lives 100 miles away in Cincinnati.
University of Alabama College of Optometry	160	48	.30	3 PART TIME	0	0	0	0	1	0	22	9	12	All M.D.s are part time classroom lecturers. One M.D./Ph.D. lectures in Pharmacology.
State University of New York College of Optometry	160	122	.76	9 PART TIME	0	0	6	0	0	0	87	3	22	
University of California Berkeley College of Optometry	256	77	.30	9 PART TIME	0	0	6	0	0	0	43	11	12	One part time M.D. teaches in Public Health, one in Engineering and one in Physiological Optics
Ferris State College of Optometry	100	31	.31	0	0	0	0	0	0	3	1	0	29	All but 2 of these 29 also teach in the Biology and Chemistry departments of the Undergraduate College.

CAN MEDICAL EYE CARE BE ENTRUSTED TO OPTOMETRISTS WHEN THIS STUDY PROVES THAT THERE ARE NO FULL-TIME M.D. INSTRUCTORS IN ANY OPTOMETRY SCHOOL ANYWHERE?

Study Compiled for PEN Inc. by the EDUCATIONAL CATALOG STUDY COMMITTEE OF THE SOUTH CAROLINA OPHTHALMOLOGICAL SOCIETY, DECEMBER, 1977.

PLEASE NOTE: THE FOLLOWING PAGES WERE TREATED AS A UNIT IN THE ORIGINAL DOCUMENT

AMERICAN OPTOMETRIC ASSOCIATION

BULLETIN

from

COUNSEL

VOLUME XXXIV, BULLETIN NO. 62 March 8, 1976

TO: State Association Presidents, Legal-Legislative Chairmen, Attorneys, Executives

FROM: Thomas E. Eichhorst, J.D., Counsel; AOA, St. Louis

SUBJECT: West Virginia Legislation

DIST: O, T, Drs. Rhodes, Rush, Division Executive Committee Chairmen, ED, WOD, GC, C, AA, Division Directors, E, NE, Administrative Heads of Schools and Colleges

The West Virginia Legislature has enacted Committee Substitute for H.B. 1005 (as amended). The West Virginia House of Delegates (the lower house) on Monday, February 16, 1976 passed the bill by a vote of 58 to 39. On Friday, February 20, 1976 the state Senate passed the bill by a vote of 27 to 4. Governor Arch A. Moore, Jr., vetoed the bill on Saturday, February 28, 1976.

On Tuesday, March 2, 1976 the House considered the measure again. An amendment was proposed to strike therapeutics and treatment from the bill. This amendment was defeated 53 to 44. Then the House voted to override the Governor's veto by a vote of 59 to 39. (In West Virginia, unlike most states, there is no 2/3 vote requirement to override; only a 51% of the elected membership is needed.) On Thursday, March 4, 1976 the Senate defeated by a voice and standing vote the amendment to strike therapeutics and treatment. Then the Senate voted to override the veto by a vote of 27 to 6.

A copy of this new law is attached. The notations (on pages 6 and 10) indicate amendments made by the House of Delegates before the initial passage of the bill.

ENROLLED

COMMITTEE SUBSTITUTE

FOR

H. B. 1005

(By Mr. Sommerville)

(Originating in the House Committee on the Judiciary.)

[Passed February 20, 1976; in effect ninety days from passage.]

AN ACT to amend and reenact section one, article five, and sections two, four and five, article eight, all of chapter thirty of the code of West Virginia, one thousand nine hundred thirty-one, as amended, relating to the profession of optometry; adding, within the definition of "prescription," optometrist to the licensed professionals who order drugs or medicines or combinations or mixtures thereof in certain cases; providing for the redefinition of the practice of optometry; exempting the practice of osteopathy from the provisions of law regulating the practice of optometry; accreditation of schools and colleges of optemetry and the qualifications, education, examination and certification of applicants to practice optometry.

Be it enacted by the Legislature of West Virginia:

That section one, article five, and sections two, four and five, article eight, all of chapter thirty of the code of West Virginia, one thousand nine hundred thirty-one, as amended, be amended and reenacted to read as follows:

ARTICLE 5. PHARMACISTS, ASSISTANT PHARMACISTS AND DRUGSTORES.

§30-5-1. Definitions.

The following words and phrases as used in this article, shall have the following meanings, unless the context otherwise requires:

(1) The term "drug" means (a) articles in the official United States Pharmacopoeia, or official National Formulary, or any other supplement to either of them, which are intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in man or other animals, and (b) all other articles intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animals, and (c) articles, other than food, intended to affect the structure or any function of the body of man or other animals and (d) articles intended for use as a component of any articles specified in clause (a), (b), or (c).

(2) The term "poisonous drug" means any drug likely to be destructive to adult human life in quantities of five grains or less.

(3) The term "deleterious drug" means any drug likely to be destructive to adult human life in quantites of sixty grains or less.

(4) The term "habit-forming drug" means any drug which has been or may be designated as habit forming under the regulations promulgated in accordance with Section 502 (d) of the Federal Food, Drug and Cosmetic Act of June twenty-fifth, nineteen hundred and thirty-eight.

(5) The term "pharmacy" or "drugstore" or "apothecary" shall be held to mean and include every store or shop or other place (a) where drugs are dispensed, or sold at retail, or displayed for sale at retail, or (b) where physicians' prescriptions are compounded; or (c) which has upon it or displayed within it, or affixed to or used in connection with it, a sign bearing the word or words "pharmacy," "pharmacists," "apothecary," "drugstore," "drugs," "druggists," "medicine," "medicine store," "drug sundries," "remedies," or any

word or words of similar or like import; or (d) any store or shop or other place, with respect to which any of the above words are used in any advertisement.

(6) The term "prescription" shall be held to mean an order for drugs or medicines or combinations or mixtures thereof, written or signed by a duly licensed physician, dentist, optometrist, as authorized by section two, article eight of this chapter, veterinarian or other medical practitioner licensed to write prescriptions intended for the treatment or prevention of disease of man or animals. The term "prescription" shall also include orders for drugs or medicines or combinations or mixtures thereof transmitted to the pharmacist by word of mouth, telephone or other means of communication by a duly licensed physician, dentist, optometrist, veterinarian or other medical practitioner licensed to write prescriptions intended for treatment or prevention of disease of man or animals, and such prescriptions received by word of mouth, telephone or other means of communication shall be recorded in writing by the pharmacist and the record so made by the pharmacist shall constitute the original prescription to be filed by the pharmacist. All such prescriptions shall be preserved on file for a period of five years, subject to inspection by the proper officer of the law. The above shall apply except for narcotic prescriptions, when all narcotic laws and regulations must be complied with.

(7) The term "cosmetic," which shall be held to include "dentifrice" and "toilet article," means (a) articles intended to be rubbed, poured, sprinkled, or sprayed on, introduced into, or otherwise applied to the human body, or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and (b) articles intended for use as a component of any such articles, except that such term shall not include soap.

ARTICLE 8. OPTOMETRISTS.

§30-8-2. Practice of optometry defined.

Any one or any combination of the following practices shall constitute the practice of optometry:

(a) The examination of the human eye, with or without

the use of drugs prescribable for the human eye, which drugs may be used for diagnostic or therapeutic purposes for topical application to the anterior segment of the human eye only, and, by any method other than surgery, to diagnose, to treat or to refer for consultation or treatment any abnormal condition of the human eye or its appendages;

(b) The employment without the use of surgery of any instrument, device, method or diagnostic or therapeutic drug for topical application to the anterior segment of the human eye intended for the purpose of investigating, examining, treating, diagnosing, improving or correcting any visual defect or abnormal condition of the human eye or its appendages;

(c) The prescribing and application or the replacement or duplication of lenses, prisms, contact lenses, orthoptics, vision training, vision rehabilitation, diagnostic or therapeutic drugs for topical application to the anterior segment of the human eye, or the furnishing or providing of any prosthetic device, or any other method other than surgery necessary to correct or relieve any defects or abnormal conditions of the human eye or its appendages.

Nothing in this section shall be construed to permit an optometrist to perform surgery, use drugs by injection or to use or prescribe any drug for other than the specific purposes authorized by this section.

§30-8-4. Registration prerequisite to practice of optometry; exceptions.

No person shall practice or offer to practice optometry in this state without first applying for and obtaining a certificate of registration for such purpose from the West Virginia board of optometry; but the following persons, firms and corporations are exempt from the operation of this article, except as hereinafter provided:

(a) Persons who have heretofore been registered as optometrists in this state, or who were engaged in the practice of optometry in this state before the passage of any law by this state regulating such practice, and who have heretofore received from the board of examiners certificates of exemption from examination;

(b) Persons authorized under the laws of this state to practice medicine and surgery or osteopathy;

(c) Persons, firms and corporations who sell eyeglasses or spectacles in a store, shop or other permanently established place of business on prescriptions from 'persons authorized under the laws of this state to practice either optometry or medicine and surgery;

(d) Persons, firms and corporations who manufacture or deal in eyeglasses or spectacles in a store, shop or other permanently established place of business, and who neither practice nor attempt to practice optometry.

§30-8-5. Qualifications of applicant for registration; examination.

An applicant for registration shall present satisfactory evidence that he is at least eighteen years of age, of good moral character and temperate habits, and has graduated from a high school or secondary school, or has completed an equivalent course of study approved by the West Virginia board of optometry, has satisfactorily completed all preoptometry or premedical college requirements and has graduated from a school or college of optometry approved by said board. No school or college of optometry shall be approved by the West Virginia board of optometry unless at first it has been accredited by a regional or professional accreditation organization which is recognized by the national commission on accreditation or the United States commission of education. Each applicant shall submit to and be examined in all phases of optometry as is provided by the school or college of optometry and shall include, but not be limited to, anatomy and physiology of the human eye, the use of instruments such as the ophthalmoscope, retinoscope, tonometer, slit lamp biomicroscope, the general laws of optics and refraction, general and ocular pharmocology, general and ocular pathology and other such subjects or instrumentation as the board of optometry may deem necessary.

The West Virginia board of optometry shall be responsible to determine the educational training received by the applicant from the schools and colleges of optometry, the educational qualifications of each applicant and the administering of the

examination and certifications of each applicant commensurate with his education. No optometrist shall be registered or certified to practice optometry in the state of West Virginia in any area that is beyond the scope of his educational training as determined by the West Virginia board of optometry: *Provided*, That any optometrist presently registered in the state of West Virginia and who desires to employ the use of pharmaceutical agents must submit to the West Virginia board of optometry evidence of satisfactory completion of all necessary educational requirements as made mandatory by the West Virginia board of optometry: *Provided further*, That the West Virginia board of optometry shall provide for continuing educational requirements to be completed from time to time by all optometrists desiring to employ the use of pharmaceutical agents.

The Joint Committee on Enrolled Bills hereby certifies that the foregoing bill is correctly enrolled.

.....
Chairman Senate Committee

.....
Chairman House Committee

Originated in the House.

Takes effect ninety days from passage.

.....
Clerk of the Senate

.....
Clerk of the House of Delegates

.....
President of the Senate

.....
Speaker House of Delegates

The within ..... this the .....

day of ..... , 1976.

.....
Governor

BULLETIN
from
OFFICE OF COUNSEL

VOLUME XXXV, BULLETIN NO. 84 June 6, 1977

TO: O, T, DEC-C, EMS, E, NE, GC, State Association Presidents, Executives, Legal-Legislative Chairmen, Attorneys, Legislative Counsel, Optometric Legislators, IAB-EC, State Board Presidents, Secretaries, Attorneys, Administrative Heads of Schools and Colleges, COE-ES, CCOC-ES, Drs. Rhodes, Rush

FROM: Thomas E. Eichhorst, Counsel

SUBJECT: North Carolina Legislation

The General Assembly of North Carolina has enacted into law Senate Bill 424, as amended. This law permits optometrists to utilize pharmaceutical agents "to correct, relieve, or treat defects or abnormal conditions of the human eye or its adnexa. Provided, however, in using or prescribing pharmaceutical agents, other than topical pharmaceutical agents within the definition hereinabove set out which are used for the purpose of examining the eye, the optometrist so using or prescribing shall communicate and collaborate with a physician duly licensed to practice medicine in North Carolina designated or agreed to by the patient."

A copy of this bill, as enacted, is enclosed. The bill in its final form passed the Senate on May 24, 1977 by a vote of 46 to 4, and the House of Representatives on June 3, 1977 by a vote of 83 to 4. In North Carolina, the Governor has no veto power, so enactment by both houses of the legislature is final.

North Carolina is the fourteenth state to enact legislation authorizing optometrists to utilize pharmaceutical agents. Twelve other states authorize optometrists to utilize diagnostic pharmaceutical agents; the dates of the enactment of these laws are Rhode Island (July 16, 1971), Pennsylvania (March 1, 1974), Tennessee (May 8, 1975), Oregon (May 20, 1975), Maine (June 24, 1975), Louisiana (July 6, 1975), Delaware (July 10, 1975), California (July 9, 1976), Wyoming (February 17, 1977), New Mexico (March 4, 1977), Montana (April 12, 1977 at 10:10 a.m.), and Kansas (April 12, 1977 at 2:00 p.m.). On March 4, 1976, the West Virginia Legislature authorized the use of drugs for diagnostic or therapeutic purposes by optometrists who meet educational requirements set by the optometry board.

[In addition, there are eight other states that do not statutorily prohibit the use of DPAs by optometrists; several of these states have attorney general opinions (+ favorable) (- unfavorable) on this point: Alabama (AG-), Florida (AG+), Idaho, Indiana (AG+), Minnesota, Nevada (State Board Statement +), New Jersey (AG+), Virginia (AG-).]

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 1977

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SENATE BILL 424*
Second Edition Engrossed 5/24/77

Short Title: Redefine Optometry. (Public)

Sponsors: Senators Hardison; Kincaid, Combs, Mathis, Raynor, Popkin, Lawing, Webster, Scott, Alexander.

Referred to: Judiciary II.

April 6, 1977

A BILL TO BE ENTITLED

AN ACT TO REDEFINE THE PRACTICE OF OPTOMETRY CONSISTENT WITH MODERN ADVANCES IN SCIENCE AND OPTOMETRY.

The General Assembly of North Carolina enacts:

Section 1. G.S. 90-114 as the same appears in the 1975 Replacement Volume 2C of the General Statutes is hereby amended and rewritten to read as follows:

"§ 90-114. Optometry defined.--Any one or any combination of the following practices shall constitute the practice of optometry:

(1) the examination of the human eye by any method, other than surgery, to diagnose, to treat, or to refer for consultation or treatment any abnormal condition of the human eye and its adnexa; or

(2) the employment of instruments, devices, pharmaceutical agents and procedures, other than surgery, intended for the purposes of investigating, examining, treating, diagnosing or correcting visual defects or abnormal conditions of the human eye or its adnexa; or

(3) the prescribing and application of lenses, devices containing lenses, prisms, contact lenses, orthoptics, vision training, pharmaceutical agents, and prosthetic devices to correct, relieve, or treat defects or abnormal conditions of the human eye or its adnexa.

Provided, however, in using or prescribing pharmaceutical agents, other than topical pharmaceutical agents within the definition hereinabove set out which are used for the purpose of examining the eye, the optometrist so using or prescribing shall communicate and collaborate with a physician duly licensed to practice medicine in North Carolina designated or agreed to by the patient. "

Sec. 2. G.S. 90-118 as the same appears in the 1975 Replacement Volume 2C of the General Statutes and in the 1975 Cumulative Supplement thereto is hereby amended by adding at the end thereof a new subsection (e) to read as follows:

"(e) The board shall not license any person to practice optometry in the State of North Carolina beyond the scope of the person's educational training as determined by the board. No optometrist presently licensed in this State shall prescribe and use pharmaceutical agents in the practice of optometry unless and until he (i) has submitted to the board evidence of satisfactory completion of all educational requirements established by the board to prescribe and use pharmaceutical agents in the practice of optometry and (ii) has been certified by the board as educationally qualified to prescribe and use pharmaceutical agents.

Provided, however, that no course or courses in pharmacology

shall be approved by the board unless (i) taught by an institution having facilities for both the didactic and clinical instruction in pharmacology and which is accredited by a regional or professional accrediting organization that is recognized and approved by the Council on Postsecondary Accreditation or the United States Office of Education and (ii) transcript credit for the course or courses is certified to the board by the institution as being equivalent in both hours and content to those courses in pharmacology required by the other licensing boards in this Chapter whose licensees or registrants are permitted the use of pharmaceutical agents in the course of their professional practice."

Sec. 3. G.S. 90-118.10 as the same appears in the 1975 Replacement Volume 2C of the General Statutes is hereby amended by adding at the end thereof a new paragraph to read as follows:

"In issuing a certificate of renewal, the board shall expressly state whether such person, otherwise licensed in the practice of optometry, has been certified to prescribe and use pharmaceutical agents."

Sec. 4. G.S. 90-118.11 as the same appears in the 1975 Replacement Volume 2C of the General Statutes is hereby amended by inserting in line 8 thereof immediately following the word "refused" and before the semicolon the words:

"; or shall practice or attempt to practice optometry by means or methods that the board has determined is beyond the scope of the person's educational training".

Sec. 5. Article 6 of Chapter 90 of the General Statutes is hereby amended by inserting therein a new section G.S. 90-

|25.| to read as follows:

"§ 90-|25.|. Filling prescriptions.--Legally licensed druggists of this State may fill prescriptions of optometrists duly licensed by the North Carolina State Board of Examiners in Optometry to prescribe, apply or use pharmaceutical agents."

Sec. 6. G.S. 90-87(22)(a) as the same appears in the |975 Replacement Volume 2C of the General Statutes is hereby amended by inserting in line | thereof immediately following the word "dentist," and preceding the word "veterinarian" the word "optometrist,".

Sec. 7. The provisions of this act are applicable only to those individuals licensed pursuant thereto and

shall not] restrict, expand, or otherwise alter those other practices or acts governed by Chapter 90 of the General Statutes.

Sec. 8. This act shall become effective on and after July |, |977.

462.20 Repealed by Laws 1976, c. 76-168, § 3, eff. July 1, 1978 [See § 11.61]

Laws 1965, c. 69-106, §§ 19, 35, provided for change to division of health of the department of health and rehabilitative services for state board of health.

Change in Fla.St.1975. "[Department of Health and Rehabilitative Services]" substituted by the division of statutory revision for "division of health of the department of health and rehabilitative services" to reflect the abolition of the division of health by Laws 1975, c. 75-48, § 3.

462.21 Omitted in Fla.St.1967

Repeal by Laws 1967, c. 67-536, § 1. Part I, chapter 458 was repealed. Section 2 of this act provided that: "This act shall take effect the first day of the first month following the first regular session of the Florida legislature held subsequent to July 1, 1967."

CHAPTER 463. OPTOMETRY

Sec.
463.115 Optometric services for certain public agencies [New].

Repeal of Chapter

Laws 1976, c. 76-168, the Regulatory Reform Act of 1976, which provides for legislative review of programs and functions which regulate professions, occupations, business, industry and other endeavors in Florida; provided in section 3 of the law for repeal of this chapter on July 1, 1978. For the provisions directing the regulatory review and a listing of all statutes affected by Laws 1976, c. 76-168, see § 11.61 and notes thereunder.

463.01 "Optometry" and "optometrist" defined [Repealed by Laws 1976, c. 76-168, § 3, eff. July 1, 1978. See § 11.61]

The practice of optometry is declared a profession, and, for the purpose of this chapter, is defined as follows, viz: to be the diagnosis of the human eye and its appendages, the employment of any objective or subjective means or methods for the purpose of determining the refractive powers of the human eyes, or any visual, muscular, neurological, or anatomic anomalies of the human eyes and their appendages, and the prescribing and employment of lenses, prisms, frames, mountings, orthoptic exercises, light frequencies, and any other means or methods for the correction, remedy, or relief of any insufficiencies or abnormal conditions of the human eyes and their appendages. An optometrist is one who practices optometry in accordance with the provisions of this chapter.

Amended by Laws 1975, c. 75-230, § 1, eff. June 27, 1975.

Laws 1976, c. 76-238, amended this section without change.

Cross References

Nonprofit optometric service corporations, see § 637.011 et seq.

1. Constitutionality

Where this section defining optometry and optometrists, in addition to prohibiting diagnosis of human eye and its appendages by the employment of any "objective or subjective" means, described and delineated in detail activities prohibited, conduct sought to be condemned was clearly defined, and this section was not unconstitutional on ground that it was so vague and ambiguous that it deprived defendant of his constitutional rights. State v. Yanes, 231 So.2d 212 (1970).

463.02 Florida state board of optometry [Repealed by Laws 1976, c. 76-168, § 3, eff. July 1, 1978. See § 11.61]

(1) The practice of optometry and the enforcement of this law shall be under the supervision of an examining and licensing board to be known as the "Florida State Board of Optometry." There is hereby created within the division of professions of the department of professional and occupational regulation the "Florida State Board of Optometry," which board shall be composed of five (5) optometrists, each of whom shall be a resident of the state who has been engaged in the practice of optometry in the state for not less than four (4) years preceding the time of his appointment.

(2) The governor shall appoint the members of the board, with each member being appointed for a term of four (4) years or until his successor is ap-

LIST OF PHARMACEUTICAL AGENTS BY NAME (OR TYPE IF NOT NAMED) THAT STATE LAW OR REGULATIONS SPECIFY OPTOMETRISTS ARE PERMITTED TO USE

ARIZONA: No list. Effective 1/1/82, the optometry law authorizes optometrists to utilize those diagnostic pharmaceutical agents known as topical anesthetics, cycloplegics and mydriatics.

ARKANSAS: 5. Approved Pharmaecutical Agents

The following pharmaceutical agents are hereby approved for use in the manner and strengths indicated:

AGENT	MAXIMUM STRENGTH
Topical Anesthetics (For Glaucoma Screening Only)	
Proparacaine Hydrochloride (Ophthaine)	.5%
Benoxinate Hydrochloride (Dorsacaine)	.4%
Fluress	-
Mydriatics	
Phenylephrine Hydrochloride (Neo-Synephrine)	2.5%
Hydroxyamphetamine Hydrobromide (Paredrine)	1%
Cycloplegics	
Tropicamide (Mydriacyl)	1% (.5%)
Cyclopentolate (Cyclogyl)	1% (.5%)
Dyes	
Fluorescein	-
Rose Bengal	1%
Methylene Blue	-

Additional pharmaceutical agents may be added when approved by the committee.

CALIFORNIA: Article 8 of Chapter 15, Title 16, California Administrative Code:

§1560. Definitions. As used in this Article:
(a) "Topical Pharmaceutical Agents" means:

Types of Drugs:	Maximum Concentration that may be used:
(1) Mydriatics	
(a) Phenylephrine Hydrochloride:	2.5%
(b) Hydroxyamphetamine Hydrobromide:	1%

(2) Cycloplegics
- (a) Tropicamide: 1%
- (b) Cyclopentolate: 1%
- (c) Homatropine Hydrobromide: 5%
- (d) Atropine Sulfate: 0.5%

(3) Topical Anesthetics
- (a) Proparacaine Hydrochloride: 0.5%
- (b) Benoxinate Hydrochloride: 0.4%
- (c) Piperocaine Hydrochloride:. 2%

DELAWARE: Section 3. Use of drugs.

3.02 Licensees who have been duly authorized by the Board may, for diagnostic purposes only, make use of the following classes of topical ophthalmic drugs; (1) anesthetics, (2) mydriatics, (3) cycloplegics, and (4) myotics; provided, however, that any such authorization by the Board shall not be construed as authorizing any licensee to dispense or issue a prescription for diagnostic drugs.

FLORIDA: No list. An optometrist may utilize pharmaceutical agents within the limits of his educational background and training.

GEORGIA: No list. An optometrist may utilize topical pharmaceutical agents within the limits of his educational background and training.

IDAHO: No list.

INDIANA: No list. Every licensed O.D. is permitted to utilize any diagnostic pharmaceutical agent

IOWA: No list. The optometry law authorizes optometrists to utilize cycloplegics, mydriatics and topical anesthetics as diagnostic agents.

KANSAS: No list. Kansas State Board of Examiners In Optometry Rules and Regulations Sec. 65-6-30 authorizes optometrists to utilize topical pharmacological agents known generically as anesthetics, mydriatics, and cycloplegics.

KENTUCKY: KY. AD. CODE §320.240 authorizes optometrists to administer diagnostic pharmaceutical agents limited to miotics for emergency use only, mydriatics, cycloplegics, and anesthetics applied topically only, but excluding any drug classified as a controlled substance.

LOUISIANA: No list. Optometry law authorizes optometrists to utilize topical ocular diagnostic pharmaceutical agents.

MAINE: Maine Board of Optometry Rules of Practice §90-382.

AUTHORIZED DIAGNOSTIC PHARMACEUTICAL AGENTS

Topical Anesthetics:

Proparacaine hydrochloride .5% (Ophthaine)
Benocinate hydrochloride .4% (Dorsacaine)

Mydriatics:

Hydroxyampnetamine hydrobromide
1.00% (Paradrine)
Phenylephrine hydrochloride 2.5% (Neo-synephrine)

MINNESOTA: No list.

MONTANA: Administrative Rules of Montana §40-3.70(6)-S70020.

40-3.70(6)-S70020 RULES FOR DIAGNOSTIC PHARMACEUTICAL AGENTS

(5) Upon licensure or certification the permissible drugs and their concentrations are as follows:

(a) Mydriatics	
(i) Phenylephrine Hydrochloride	2.5%
(ii) Hydroxyamphetamine Hydrobromide	1.0%
(b) Cycloplegics	
(i) Tropicamide	1.0%
(ii) Cyclopentolate	1.0%
(iii) Homatropine Hydrobromide	.5%
(iv) Atropine Sulfate	.5%
(c) Topical Anesthetics	
(i) Proparacaine Hydrochloride	.5%
(ii) Benoxinate Hydrochloride	.4%
(iii) Piperocaine Hydrochloride	2.0%

(d) Miotic, only in the event of an emergency...

NEBRASKA: No list. Pharmaceutical agents mean anesthetics, cycloplegics, and mydriatics and may be used for diagnostic purposes by optometrists who are certified to use pharmaceutical agents.

NEVADA: The following topical ophthalmic pharmaceutical agents may be used in the concentrations specified for diagnostic purposes by an optometrist who has been authorized by the board to do so:

(a) Mydriatics:
1. Phenylephrine hydrochloride, 2.5 percent.
2. Hydroxyamphetamine hydrobromide, 1 percent
(b) Cycloplegics:
1. Tropicamide, 1 percent.
2. Cyclopentolate, 1 percent
3. Homatropine hydrobromide, 5 percent
4. Atropine sulfate, 0.5 percent
(c) Topical anesthetics:
1. Proparacaine hydrochloride, 0.5 percent.
2. Benoxinate hydrochloride, 0.4 percent.
3. Piperocaine hydrochloride, 2 percent.
(d) Miotics:
1. Pilocarpine, 1 percent in ordinary use.
2. Pilocarpine, 3 percent for emergency use only.

NEW JERSEY: No list.

NEW MEXICO: No list. Optometry law authorizes optometrists to utilize topical ocular diagnostic pharmaceutical agents.

NORTH CAROLINA: No list. An optometrist may utilize pharmaceutical agents within the limits of his educational background and training.

NORTH DAKOTA: No list. Optometry law authorizes optometrists to utilize ocular diagnostic pharmaceutical agents.

OREGON: OR. AD. RULES §852-8-010:

Diagnostic Pharmaceutical Agents
852-80-010 Diagnostic pharmaceutical agents for topical use in the practice of optometry:
(1) Anesthetics:
(a) Benoxinate 0.4%
(b) Proparacaine HCl 0.5%
(2) Cycloplegics/Mydriatics:
(a) Cyclopentolate, not to exceed 1%
(b) Hydroxyamphetamine HBr 1%
(c) Phenylephrine HCl, not to exceed 1%
(d) Tropicamide, not to exceed 1%
(3) Dyes:
(a) Fluorescein Na impregnated paper strips, as commonly used in the practice of optometry for some time; not to be stored in liquid form.
(b) Rose bengal 1%
(4) Miotics (for emergency use only): Pilocarpine, not to exceed 4%; prior to use, consultation with a competent physician shall be held if at all possible. The Board recommends that any patient demonstrating any adverse reaction due to the instillation of any diagnostic pharmaceutical agent be referred to a competent physician as soon as practicable.

On 4/22/80 the Board proposed to amend OAR 852-80-010 by additions as follows (additions underlined):

DIAGNOSTIC PHARMACEUTICAL AGENTS
852-80-010 Diagnostic Pharmaceutical agents for topical use in the practice of optometry:

Anesthetics: Benoxinate 0.4%
Proparacaine HCl 0.5%

Cycloplegics/Mydriatics:
Cyclopentolate, not to exceed 1%
Hydroxyamphetamine HBr 1%
Phenylephrine HCl, not to exceed 10%
Tropicamide, not to exceed 1%

Dyes: Fluorescein Na impregnated paper strips, as commonly used in the practice of optometry for some time; not to be stored in liquid form.
Rose bengal 1%
Fluoresoft (Fluorexon .35%)

Combined agents:
Fluress (Fluorescein, Sodium, 0.25%, and Benoxinate HCL, 1%)

Cyclomydril (Cyclopentolate HCL, 0.2% and Phenylepherine HCL, 1%)

Any other FDA approved combination of two or more agents appearing on this list which may be used for ocular diagnostic purposes.

Miotics: (for emergency use only!)
Pilocarpine, not to exceed 4%; prior to use, consultation with a competent physician shall be held if at all possible.

PENNSYLVANIA: Optometrists who are appropriately qualified pursuant to the Act of March 1, 1974, (Act No. 29 of 1974), 63 P.S., Section 231 et. seq., shall be permitted to utilize the following drugs in their practice of Optometry, by order of the Secretary of Health, October 12, 1974, finalized April 26, 1975.

A. Local anesthetics:

Benoxinate Hydrochloride - Ophthalmic Solution (0.4%)
Proparacaine Hydrochloride - Ophthalmic Solution (0.5%)

B. Miotics:

Pilocarpine Nitrate Ophthalmic Solution U.S.P. (1%)
Pilocarpine Hydrochloride Ophthalmic Solution U.S.P. (1%)

C. Mydriatics and/or cycloplegics:

Eucatropine Hydrochloride U.S.P. - Ophthalmic Solution (5%)
Homatropine Hydrobromide Ophthalmic Solution U.S.P. (2%)
Hydroxyamphetamine Hydrobromide Ophthalmic Solution U.S.P. (1/2%)
Tropicamide Ophthalmic Solution U.S.P. (1%)
Atropine Sulfate Ophthalmic Solution U.S.P. (1%)
Ophthalmic Ointment (1%)
Psyclopentolate Hydrochloride - Ophthalmic Solution (1%)
Scopolamine Hydrobromide U.S.P. - Ophthalmic Solution U.S.P. (.25%)
Ephedrine Sulfate U.S.P. - Ophthalmic Solution (5%)
Phenylephrine Hydrochloride - Ophthalmic Solution U.S.P. (10%)

All Potencies listed above are the maximum allowable potencies.

RHODE ISLAND: No list. Any topical anesthetic, mydriatic and miotic is allowed. Cycloplegics are not specifically mentioned but the rule of mydriatic can be applied. By Board recommendation atropine sulphate in any percentage is discouraged.

SOUTH DAKOTA: No list. Optometry law authorizes optometrists to utilize topical pharmaceutical agents for diagnostic purposes.

TENNESSEE: No list. An optometrist may utilize pharmaceutical agents, to wit, miotics, mydriatics, cycloplegics, and anesthetics, within the limits of his educational background and training.

UTAH: (e) Topically applied diagnostic agents as used herein shall be defined as the following:

(i) Commercially prepared topical anaesthetics as follows: proparacaine HCL 0.5%, benoxinate HCL 0.4%, piperocaine 2%, and tetracaine 0.5%;

(ii) Tropicamide in strength of not greater than 1%, cyclopentolate in strength of not greater than 1%, and atropine sulfate in strength of not greater than 0.5%;

(iii) Penylephrine HCL in strength of not greater than 2.5%, hydroxyamphetamine in strength of not greater than 1%;

(iv) Such others as may be from time to time determined by the Optometric Committee of the Utah State Business Regulations Division in consultation with a licensed physician specializing in diseases and surgery of the eye, appointed by the Utah Medical Association, and a pharmacologist appointed by the Medical Center of the University of Utah. Any

individual who is not certified to utilize diagnostic pharmaceutical agents hereunder shall post with the Optometry Committee of the Utah State Business Regulations Division an affidavit stating that the person is not now certified nor does the person desire to certify to use diagnostic pharmaceutical agents.

WEST VIRGINIA: Topical agents for the eye and treating the anterior segments only. No oral or injectible pharmaceuticals are permitted in any form whatsoever.

WISCONSIN: (9) "Diagnostic pharmaceutical agent" means any of the topical, ocular, diagnostic, pharmaceutical agents listed below if used in accordance with the following conditions: agents may be used in strengths no greater than the strengths indicated in the list; may be used by the optometrist only and may not be dispensed by the optometrist to patients for self-administration.

(a) Mydriatics
1. Phenylephrine 2.5%
2. Hydroxyamphetamine 1%
(b) Cycloplegics
1. Tropicamide 1%
2. Cyclopentolate 1%
(c) Topical Anesthetics
1. Benoxinate 0.4%
2. Proparacaine 0.5%
3. Tetracaine 0.5%
4. Benoxinate 0.4% - Fluorescein 0.25% Combination
(d) Dyes
1. Fluorescein 0.25% - Benoxinate 0.4% Combination

WYOMING: No list. Optometry law authorizes optometrists to use diagnostic agents, topically applied, known generically as cycloplegics, mydriatics, topical anesthetics, dyes and for emergency use only miotics for immediate administration to the ultimate user.

AMERICAN OPTOMETRIC ASSOCIATION

BULLETIN

from the

COMMITTEE ON STATE AGENCIES

COMMUNITY HEALTH DIVISION

VOLUME XXXIII, BULLETIN NO. 36 May 28, 1975

TO: State Association Presidents, Legal-Legislative Chairmen, Attorneys, Executives

FROM: Virgil L. Rhodes, O.D., Chairman

SUBJECT: Oregon Legislation

DIST: O, T, Dr. Pitts, Division Executive Committee Chairmen, CHD-EC, SAC, ED, WOD, GC, C, AA, Division Directors, E, NE, Drs.Holcombe, Lind, Rush, Reslock, Administrative Heads of Schools and Colleges

On Tuesday, May 20, 1975, Oregon Governor Robert W. Straub signed into law House Bill No. 2740.

A copy of this bill, as enacted, is attached.

The bill passed the House by a vote of 31 to 27, and the Senate by a vote of 20 to 10.

Oregon is the fourth state to enact legislation authorizing optometrists to utilize diagnostic pharmaceutical agents. The three other states and the dates of their enactment are Rhode Island (July 16, 1971), Pennsylvania (March 1, 1974) and Tennessee (May 8, 1975).

[In addition there are seven other states that do not statutorily prohibit the use of DPAs by optometrists: several of these states have attorney general opinions (+favorable) (-unfavorable) on this point: Florida (old AG-),Idaho,Indiana (AG+), Minnesota, Nevada (AG+), New Jersey (AG+), Virginia (AG-).]

Enrolled

House Bill 2740

Sponsored by Representatives OTTO, GRANNELL, GWINN, WALDEN,
Senators HOWARD, JERNSTEDT

CHAPTER.....

AN ACT

Relating to the practice of optometry; amending ORS 683.010, 683.040, 683.060 and 683.270.

Be It Enacted by the People of the State of Oregon:

Section 1. ORS 683.010 is amended to read:

683.010. As used in this chapter, unless the context requires otherwise:

(1) "Board" means the Oregon Board of Optometry.

(2) "Practice of optometry" means the employment of any means other than the use of drugs, except diagnostic agents, topically applied, known generically as cycloplegics, mydriatics, topical anesthetics, dyes such as fluorescein, and, for emergency use only, miotics, for the measurement or assistance of the powers or range of human vision or the determination of the accommodative and refractive states of the human eye or the scope of its functions in general or the adaptation of lenses or frames for the aid thereof, subject to the limitations of ORS 683.040.

(3) "Trial frames" or "test lenses" means any frame or lens used in testing the eye which is not sold and not for sale.

Section 2. ORS 683.040 is amended to read:

683.040. (1) Every person desiring to commence the practice of optometry in this state must show by satisfactory evidence that he is of good moral character and has graduated from a school of optometry which is recognized and approved by the board and which maintains a standard of four school years of at least nine months each.

(2) Every person desiring to commence the practice of optometry after January 1, 1976, or employ the use of diagnostic agents shall in addition to the requirements of subsection (1) of this section have satisfactorily completed a course in pharmacology, as it applies to optometry, by an institution accredited by a regional or professional accreditation organization which is recognized or approved by the National Commission on Accrediting or the United States Commissioner of Education, with particular emphasis on the topical application of diagnostic agents to the eye for the purpose of examination of the human eye and the analysis of ocular functions, approved by the Oregon Board of Optometry.

Section 3. ORS 683.060 is amended to read:

683.060. (1) Any person who has signified to the board his desire to be examined by it and who has filed proof that he is qualified under this chapter and the rules of the board to take such examination shall appear before the board at such time and place as the board may designate, and before beginning the examination the applicant shall pay $50 to the secretary of the board. At the examinations the board shall examine applicants in the anatomy of the eye, in the use of diagnostic agents as used topically, in normal and abnormal refractive and accommodative and muscular conditions and coordination of the eye, in subjective and objective

optometry, including the fitting of glasses, the principles of lens grinding and frame adjusting, and in such other subjects as pertain to the science and practice of optometry, such subjects to be enumerated in a publication by the board.

(2) The board may, in its discretion, accept the certificate of successful examination of the National Board of Examiners in Optometry in one or more areas of the examination in lieu of its written examination in such areas.

(3) If an applicant shall fail to pass a second examination, the board may permit additional examinations upon compliance by the applicant with the law and the rules of the board.

Section 4. ORS 683.270 is amended to read:

683.270. The powers and duties of the board are as follows:

(1) To organize and elect from its membership a president and secretary of the board, each of whom shall hold office for one year, or until the election and qualification of a successor.

(2) To adopt and use a common seal.

(3) To employ agents, attorneys and inspectors to secure evidence of, report on, and prosecute all violations of this chapter and to employ other necessary assistance in the carrying out of the provisions of this chapter, and to pay the same from the funds provided in this chapter.

(4) To hold regular meetings at least once a year at which an examination of applicants for certificates of registration shall be held at such places as the board shall from time to time designate, and special meetings upon request of a majority of the members of the board or upon the call of the president.

(5) To keep an accurate record of all proceedings of the board and of all of its meetings, of all prosecutions for violations of this chapter, and of all examinations held for applicants for certificates of registration, with the names and addresses of all persons taking examinations and their success or failure to pass such examinations. All the records of the board shall be public and shall be kept in the office of the board.

(6) To keep an accurate inventory of all property of the board and of the state in the possession of the board and to obtain a receipt therefor from its successor.

(7) To keep a register of optometrists which shall contain the names and addresses of all persons to whom certificates of registration have been issued in the State of Oregon, together with the date of the issuance of such certificate and the place or places of business in which each optometrist is engaged, and all renewals, revocations and suspensions thereof.

(8) To grant or refuse to grant certificates of registration as provided in this chapter and to revoke the certificate of registration of any optometrists for any of the causes specified in ORS 683.140.

(9) To designate diagnostic pharmaceutical agents for topical use in the practice of optometry from among the generic categories enumerated within subsection (2) of ORS 683.010. Said designation shall take place not later than January 1, 1976, and shall be with the advice and guidance of the Board of Medical Examiners for the State of Oregon.

[(9)] **(10)** To administer oaths and take testimony upon granting and revoking or suspending any certificate of registration.

[(10)] **(11)** To make rules not inconsistent with the laws of this state as are deemed necessary or proper to carry out the lawful powers and duties of the board, as may be necessary or proper to determine the qualifications of applicants for a certificate to practice optometry in this state, and to establish educational, moral and professional standards for such applicants, subject to the laws of this state. If an applicant fails to pass a second examination the board may adopt rules which may provide the required courses of study before further examination.

Date: January 28, 1981 File Ref:

To: Sen. Thompson

From: Ann J. Haney, Secretary
Department of Regulation and Licensing

Subject: Report on Diagnostic Pharmaceutical Agents

At my request, staff from the Bureau of Health Professions in the Department of Regulation and Licensing have submitted a preliminary report and recommendations concerning the use of DPAs by optometrists. A compilation of the statistics from May, 1979, to November, 1980, reported to the Department by DPA certified optometrists show the following:

280 optometrists are certified to use DPA's
215 certified optometrists have used DPA's on 99,226 patients
65 certified optometrists have not used DPA's in their practice

Of the 99,226 patients to whom DPA's were administered, 4,359 patients were referred to appropriate medical specialists for a variety of medical problems.

Twelve certified optometrists reported that 20 patients had mild to moderate adverse drug reactions (eye stinging, allergy). Some of these patients were referred to medical specialists and other patients reactions were cleared up within a short period of time (10-15 minutes).

Based on the statistics reported it appears that many patients benefited by the use of DPA's. These patients were referred to appropriate medical specialists for possible medical problems that may otherwise have gone undetermined.

The only problem reported involved the above 20 patients where a reaction occurred. All of these reactions were reported a mild to moderate discomfort lasting no longer than 48 hours. While there were mild physical reactions in less than 1% of the patients, there were no reports of psychological reactions.

On the basis of the above data staff recommended that s. 449.17 (1) and (7), Stats., be repealed effective July 1, 1982.

Staff further recommended that the Department consider further statute and code revisions at a later date.

AD-75

They are as follows:

1. Fees (to correspond with other certified or licensed individuals) to cover administrative and examination costs, and the establishment of a renewal date.

2. Deletion of the code provision that requires the optometrist to submit a report to the Department on use of DPA's and any adverse drug reaction. Physicians, dentists and osteopaths are not required to report adverse reactions by patients. In addition, the minimal number of adverse reactions (20) do not justify our reviewing and filing 1,000 pieces of paper over an 18 month period.

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AN ACT to repeal 449.17 (1) and (7) of the statutes, relating to making permanent the authorization for optometrists to use topical ocular diagnostic pharmaceutical agents.

Analysis by the Legislative Reference Bureau

Chapter 280, laws of 1977, authorized optometrists to use topical ocular diagnostic pharmaceutical agents under certain conditions. These conditions include having an approved plan for the referral of patients who experience adverse reactions, successful completion of a pharmacology examination and specific education on the use of such agents.

The enacting law provided that the use of such agents was authorized only until July 1, 1982. On January 1, 1982, the department of regulation and licensing is required to report to the legislature on the use of such agents by optometrists, including the health benefits and problems involved in such use and whether or not any individual is known to have suffered any physical or psychological reaction to such an agent and the severity of the reaction.

Under this bill, the July 1, 1982, "sunset" provision is removed, thus authorizing optometrists to continue to use topical ocular diagnostic pharmaceutical agents subject to the same conditions currently imposed in the statutes and by administrative rules promulgated by the department of regulation and licensing.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

SECTION 1. 449.17 (1) and (7) of the statutes are repealed.

SECTION 2. EFFECTIVE DATE. This act takes effect on July 1, 1982.

(End)

Arizona

CHAPTER 16.—OPTOMETRY

Effective January 1, 1982

ARTICLE 1. GENERAL PROVISIONS

ARTICLE 2. LICENSING

ARTICLE 3. REGULATIONS

ARTICLE 4. REFERRAL

Chapter 16, consisting of Article 1, §§ 32-1701 to 32-1704, Article 2, §§ 32-1721 to 32-1727, Article 3, §§ 32-1741 to 32-1752, and Article 4, § 32-1761, was added by Laws 1980, Ch. 248, § 4, effective January 1, 1982.

For Chapter 16 as added by Laws 1980, Ch. 248, § 3, effective July 1, 1980, see Chapter 16, ante.

Former Chapter 16, consisting of Article 1, §§ 32-1701 to 32-1706, Article 2, §§ 32-1721 to 32-1726, and Article 3, §§ 32-1751 to 32-1759, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

Termination under Sunset Law

The board of optometry shall terminate on July 1, 1985, unless continued. See §§ 41-2363.01 and 41-2377.

Chapter 16 relating to optometry is repealed on January 1, 1986. See § 41-2371.01.

ARTICLE 1. GENERAL PROVISIONS

Article 1, consisting of §§ 32-1701 to 32-1704, was added by Laws 1980, Ch. 248, § 4, effective January 1, 1982.

For Article 1 as added by Laws 1980, Ch. 248, § 3, effective July 1, 1980, see Chapter 16, Article 1, ante.

Former Article 1, consisting of §§ 32-1701 to 32-1706, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

For termination under Sunset Law, see italic note, ante.

§ 32-1701. Definitions

In this chapter, unless the context otherwise requires:

1. "Board" means the state board of optometry.

(2.) "Cycloplegics" means one-half of one per cent tropicamide, one per cent tropicamide, or cyclogyl.

3. "License" means a license or certificate to practice the profession of optometry.

4. "Licensed optometrist" or "doctor of optometry" means a person holding a license to practice the profession of optometry in this state.

5. "Mydriatics" means one per cent paredrine, two and one-half per cent phenylephrine HCL, or ten per cent phenylephrine HCL.

6. "Practice of the profession of optometry" means the examination or refraction of the human eye and its appendages, and the employment of any objective or subjective means or methods other than medicine or surgery, or the use of drugs, except those diagnostic pharmaceutical agents known as topical anesthetics, cycloplegics and mydriatics, to be administered only at the time and place of examination, for the purpose of determining any visual, muscular, neurological or anatomical anomalies of the eye, the use of any instrument or device to train the visual system or correct any abnormal condition of the eye or eyes and the prescribing, fitting or employment of any lens, prism, frame or mountings for the correction or relief of or aid to the visual function. Optometrists may use such diagnostic pharmaceutical agents for diagnostic purposes only after first satisfactorily completing a course in clinical pharmacology as required in § 32-1722.

7. "Topical anesthetics" means one-half of one per cent pontocaine or one-half of one per cent proparacaine.

8. "Unprofessional conduct" means:

(a) Wilful betrayal of a professional secret or wilful violation of a privileged communication except as otherwise required by law.

(b) Final judgment of conviction for an offense involving moral turpitude, in which case the record of such conviction is conclusive evidence.

(c) Giving or receiving rebates.

(d) Addiction to, or illegal use of, narcotic drugs or use of intoxicating beverages to excess or practicing or attempting to practice the profession of optometry while under the influence of intoxicating beverages or narcotic drugs.

(e) Impersonation of another licensed optometrist.

(f) Knowingly having professional connection with or lending one's name to an illegal practitioner.

(g) Gross malpractice or repeated acts constituting malpractice.

(h) Any conduct or practice, including incompetency, which constitutes a danger to the health, welfare or safety of patients or the public.

(i) Prescribing, dispensing or pretending to use any secret means, methods, device or instrumentality.

(j) Refusing to divulge to the board upon demand the means, methods, device or instrumentality used for optometric examination or therapy.

(k) Representing that a manifestly not correctable condition can be permanently corrected or that a correctable condition can be corrected within a stated time if such is not accurate.

(l) Knowingly making any false or fraudulent statement, written or oral, in connection with the practice of the profession of optometry. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

Laws 1980, Ch. 248, § 13, subsec. B, effective July 1, 1980, provides:
"B. The provisions of § 4 of this act are effective on January 1, 1982."
For legislative intent regarding Laws 1980, Ch. 248, see note following § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1701, as amended by Laws 1979, Ch. 60, § 1, eff. April 17, 1979, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.
For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of added sections, see Tables preceding § 32-

Ch. 16 effective until Jan. 1, 1982, see Ch. 16, ante.

1701 in Chapter 16 effective until January 1, 1982, ante.

1980 Reviser's Notes:

Pursuant to authority of section 41-1304.02, in paragraph 3, "license" was substituted for "licensed" to correct a manifest clerical error.

In adding chapter 16, Laws 1980, Ch. 248, sec. 4 incorrectly referred to its addition to title 43.

Pursuant to authority of section 41-1304.02, in paragraph 4 following "doctor" the word "of" was substituted for "or" as a correction of a manifest clerical error.

Library References

Physicians and Surgeons ⇐2.
C.J.S. Physicians and Surgeons § 3 et seq.

§ 32-1702. Board of optometry; appointment; qualifications; term; removal

A. There is established a state board of optometry which consists of six members appointed by the governor. Terms of office are for four years expiring on July 1 of the respective year. Four members shall have been licensed and engaged in the active practice of the profession of optometry in this state for at least three years immediately prior to appointment, one member shall be a physician licensed pursuant to chapter 13 or 17 of this title,[1] and one member shall be a lay person with no interest, direct or indirect, in the practices of optometry, opticianry or medicine.

B. The governor may remove any professional member for incompetency or unprofessional conduct or when his license has been revoked or suspended or when he has been censured or placed on probation. The governor may remove any member for neglect of duty or improper conduct. The unexcused absence of a member for more than two consecutive meetings is justification for removal. Appointment by the governor to fill a vacancy caused other than by expiration of a term is for the unexpired portion of the term.

C. A member of the board is ineligible to serve more than two consecutive full terms. The completion of the unexpired portion of a full term does not constitute a full term for purposes of this subsection. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

[1] Sections 32-1401 et seq., 32-1801 et seq.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of added sections, see Tables preceding § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1702, as amended by Laws 1979, Ch. 50, § 2, eff. April 17, 1979, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

Library References

Physicians and Surgeons ⇐3.
C.J.S. Physicians and Surgeons §§ 2, 6, 13.

§ 32-1703. Organization of board; compensation; immunity; treatment of money received

A. The board shall annually elect from its members a president who shall preside over all meetings of the board and such other officers as it deems appropriate and necessary to conduct its business. The board shall assign such duties as it deems appropriate to such other officers as it elects.

B. Members of the board are eligible to receive compensation as determined pursuant to § 38-611 for each day actually spent in the performance of their duties.

C. Members of the board are personally immune from suit with respect to all acts done and actions taken in good faith and in furtherance of the purposes of this chapter.

D. All monies received by the board shall be paid at least monthly to the state treasurer who shall deposit such monies in the general fund. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of add-

ed sections, see Tables preceding § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1703, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

Library References
Physicians and Surgeons ⇨3.
C.J.S. Physicians and Surgeons §§ 2, 6, 13.

§ 32-1704. Powers and duties of the board; meetings

A. The board shall promulgate, and may amend, rules and regulations consistent with this chapter governing the practice of the profession of optometry, for the performance of its duties under this chapter and for the examination of applicants for licenses. The board shall adopt and use a seal, administer oaths and take testimony concerning any matter within its jurisdiction.

B. The board may not adopt a rule which:

1. Regulates fees or charges of a doctor of optometry to a patient.

2. Regulates the place in which a doctor of optometry may practice.

3. Prescribes the manner or method of accounting, billing or collection of fees.

4. Prohibits advertising by a doctor of optometry unless such advertising is inconsistent with § 44-1481.

C. The board shall meet at least six times each year at such times and places within the state as its president or the governor may designate by call. The board shall keep a record of all its acts, receipts and disbursements. The board shall keep a master copy of each examination given, together with the names and addresses of the applicants and their individual test scores. The board shall keep a record of the names of all persons to whom licenses have been issued and all renewals. All such records are public records.

D. The board may adopt and promulgate administrative rules providing for criteria for approving programs of continuing education for doctors of optometry. Programs shall be designed to assist doctors of optometry to maintain competency, to become aware of new developments in the practice of the profession of optometry and to increase management skills and administrative efficiency. The board shall approve programs meeting its adopted criteria.

E. The board may hire an executive director as an employee of the board. The executive director is responsible for the performance of the regular administrative functions of the board and such other administrative duties as the board may direct. The executive director is eligible to receive compensation in an amount as determined pursuant to § 38-611.

F. The board may hire or contract with investigators to assist in the investigation of violations of this chapter, hire other employees required to carry out this chapter and contract with other state agencies when required to carry out this chapter.

G. Not later than December 31 each year the board shall transmit to the governor a written report of its actions and proceedings. The report shall be verified by the president and shall include a detailed statement of the receipts and disbursements for the preceding year. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of added sections, see Tables preceding § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1704 was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

Library References
Physicians and Surgeons ⇨3.
C.J.S. Physicians and Surgeons §§ 2, 6, 13.

Ch. 16 effective until Jan. 1, 1982, see Ch. 16, ante

§§ 32-1705, 32-1706. Repealed by Laws 1980, Ch. 248, § 2, eff. July 1, 1980

Former §§ 32-1705, as amended by Laws 1979, Ch. 50, § 3, eff. April 17, 1979, and 32-1706, as amended by Laws 1977, Ch. 82, § 19, eff. May 23, 1977, were repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

ARTICLE 2. LICENSING

Article 2, consisting of §§ 32-1721 to 32-1727, was added by Laws 1980, Ch. 248, § 4, effective January 1, 1982.

For Article 2 as added by Laws 1980, Ch. 248, § 3, effective July 1, 1980, see Chapter 16, Article 2, ante.

Former Article 2, consisting of §§ 32-1721 to 32-1726, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

For termination under Sunset Law, see italic note preceding § 32-1701.

§ 32-1721. Persons and acts not affected by this chapter

This chapter does not apply to:

1. Physicians and surgeons duly licensed to practice medicine and surgery in this state, if they are practicing lawfully.

2. Dispensing opticians duly licensed to practice, if they are practicing lawfully in accordance with the provisions of § 32-1671.

3. The sale of complete ready-to-wear eyeglasses as merchandise from a permanently established place of business. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of added sections, see Tables preceding § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

For legislative intent regarding Laws 1980, Ch. 248, see note following § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1721 was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

Library References

Physicians and Surgeons ⇐6(5).
C.J.S. Physicians and Surgeons §§ 10, 23.

§ 32-1722. Qualifications of applicant; applications

A. A person of good moral character, desiring to engage in the practice of the profession of optometry, shall file with the board not less than thirty days prior to the date on which an examination is to be held a verified application with the required application fee, which shall show:

1. Applicant's name, age and address.

2. Graduation from a university or college teaching the profession of optometry accredited by a nationally accepted accrediting body on optometric education.

3. Satisfactory completion of a course of study in clinical pharmacology approved by a committee composed of the president of the board, the chairman of the pharmacology department of the university of Arizona college of medicine and the chairman of the department of opthalmology of the university of Arizona college of medicine, with particular emphasis on the clinical application of diagnostic pharmaceutical agents for the purpose of examination of the human eye and the analysis of ocular functions.

4. Background information on a form prescribed by the attorney general for the purpose of conducting an investigation into the existence of prior arrests and convictions.

B. Upon receipt of an application in proper form and containing the information prescribed in subsection A, the board may have an investigation made of the applicant's character, a' ility and experience.

C. For the purposes of such investigation, the board may subpoena witnesses, administer oaths and take testimony with respect to the character of the applicant or to any matter affecting the application at a hearing held after sufficient notice has been given.

D. If the board finds that the applicant has passed the examination provided for under § 32-1723 or 32-1724, and that the applicant's character, ability and experience are satisfactory, the board shall issue a license.

E. Every application shall be approved or denied within ninety days from the filing date or, if a hearing is held, within thirty days from the close of hearing. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of added sections, see Tables preceding § 32-1701 in Chapter 16 effective until January 1, 1982, ante.

Former § 32-1722, as amended by Laws 1979, Ch. 50, § 4, eff. April 17, 1979, was repealed by Laws 1980, Ch. 248, § 2, effective July 1, 1980.

1980 Reviser's Note:

Pursuant to authority of section 41-1304.02, in subsection A, paragraph 3 the spelling of "opthalmology" was corrected as a manifest clerical error.

Library References

Physicians and Surgeons ⇐4.
C.J.S. Corporations § 956.
C.J.S. Physicians and Surgeons § 12.

§ 32-1723. Reciprocity

A. A person who presents to the board a certified copy of or a license in good standing which was issued after examination by a board of registration in the profession of optometry in any other state where the requirements for licensure are, in the opinion of the board, equivalent to those of this state shall be licensed in this state without a written examination but shall be given a practical and oral examination subject to all of the following:

1. That such state accords like privileges to holders of licenses issued in this state.

2. The license of the applicant shall not have been suspended or revoked by such other state for any cause which is a basis of suspension or revocation of a license under this chapter.

3. The applicant has not previously failed to pass the examination in this state subsequent to his admission to practice in such other state.

4. The applicant has been engaged in the practice of the profession of optometry continuously in such state for not less than four of the five years immediately preceding his application.

5. The applicant intends to reside and practice the profession of optometry in this state.

6. The applicant offers proof of satisfactory completion of a course of study in clinical pharmacology approved by a committee composed of the president of the board, the chairman of the pharmacology department of the university of Arizona college of medicine and the chairman of the department of ophthalmology of the university of Arizona college of medicine, with particular emphasis on the clinical application of diagnostic pharmaceutical agents for the purpose of examination of the human eye and the analysis of ocular functions.

7. The applicant meets the requirements of § 32-1722 concerning good, moral character.

B. Subsection A applies only to those persons coming into this state to open a permanent office within one hundred eighty days from the date a license is issued. Added Laws 1980, Ch. 248, § 4, eff. Jan. 1, 1982.

Effective January 1, 1982.

For applicable effective date provision of Laws 1980, Ch. 248, see note following § 32-1701.

For disposition of the subject matter of repealed and expiring sections and derivation of the subject matter of add-

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