Review Article

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The case for and against the defensive optometrist

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Abstract

Treatment should always follow established guidelines by regulatory boards. However, guidelines do not themselves establish the standard of care. It is more likely to be established by ophthalmologists or by a higher medical standard with advances in technology. This is dependent upon state law. In relation to medical experts, only if a witness agrees that a book, article or guideline is authoritative can the witness be questioned on that authority. The reasonable patient test may flip the coin to reduce liability in future and avoid the need for expert testimony. The prudent optometrist should act appropriately for the patient, raising standards when necessary and maintaining the reasonable standard in all other circumstances.

In the discourse of their duties, ophthalmic practitioners are facing a higher degree of scrutiny due to the developments in technology and skillset offered. An ever-increasing and ageing population means the prudent optometrist is likely to feel challenged in detecting and possibly managing rising cases of pathology without causing diary disturbances and delays. As a way to avoid potential liability, optometrists may follow american physicians and practice defensively. Erring on the side of caution, practitioners order more diagnostic procedures than might be necessary to head off litigation, disregarding the need to use "reasonable care" [1].

The duty to provide reasonable care is now itself a moot point in some jurisdictions. Such developments require practitioners to reflect upon medico-legal advents in the law of negligence globally. Whilst technological advancements have made it possible to detect ocular conditions earlier, faster and with greater accuracy, there is increased responsibility for properly diagnosing patients and for not missing any sight or life-threatening conditions. The argument for and against defensive optometric practice will be considered in light of these trends.

In order to prove liability in the tort of negligence, the patient must show:

- a duty of care
- breach of the duty
- injury
- a causal link between the breach and the injury
- the injury itself is foreseeable

Duty of care was first established in Scotland as a legal principle by the 1932 case of Donoghue v Stevenson [2]. An act or omission by an optometrist may amount to breach. Such a predicament can leave one between a rock and a hard place. To determine whether breach has occurred often requires an understanding of civil and criminal legislative tests.

If a regulator is involved, different clinical standards are applied in determining the fitness of an optometrist to practice, and the regulator's interest is in protecting the public.

Legislation varies from country to country, and the clinical standards set by governing bodies vary between the European states (figure 1) as well as US states and Australia. Within Europe, separate regulation exists only in UK & Latvia [3, 4].

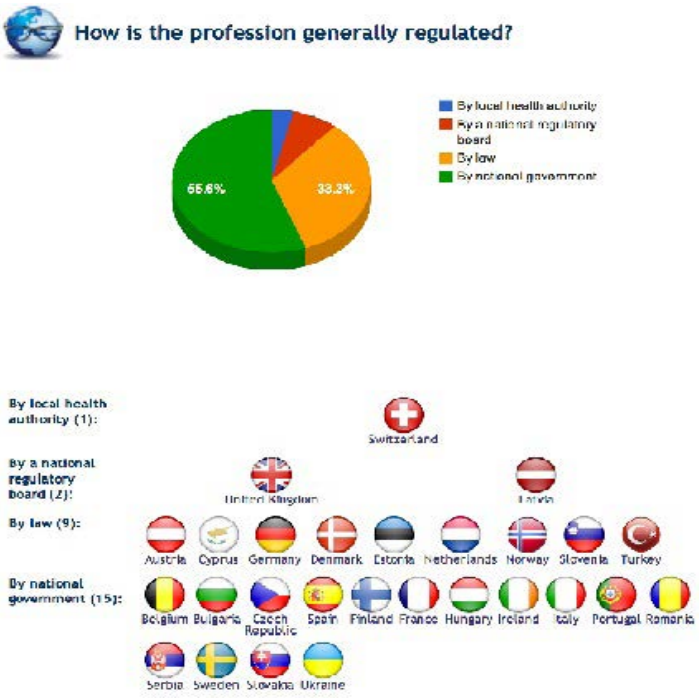

Figure 1: Regulation of EU Optometry (ECOO Blue Book 2015).

In 2014-15 the GOC received 279 complaints, leading to 27 substantive hearings by the Fitness to Practice committee.

10 optometrists were erased from the registers (37%) and 2 suspended (7.4%).

The number of erasures has doubled in the past 5 years.

TABLE 3 Outcomes of Substantive hearings of the FtP committee (Source GOC Annual Report 2014-15) [16]

Outcome	2014/15	%
Erasure	10	37
Suspension	2	7.4
Conditions	1	3.7
Financial penalty	1	3.7
Warning	7	25.9
No further action/ no case to answer	6	22.2

Figure 2: Outcome of substantive hearings of FtP committee (Source GOC Annual Report 2014-15).

Over the last twelve years there has been a drop in the total number of paid medical malpractice claims against health care professionals in the US (Fig 3) [5]. However, the number of paid malpractice claims against optometrists only has risen (Fig 4) [6].

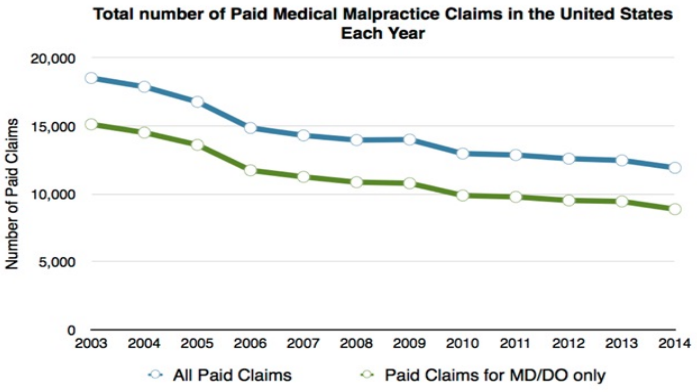

Figure 3: Total number of claims against all healthcare professionals in US 2003-2014.

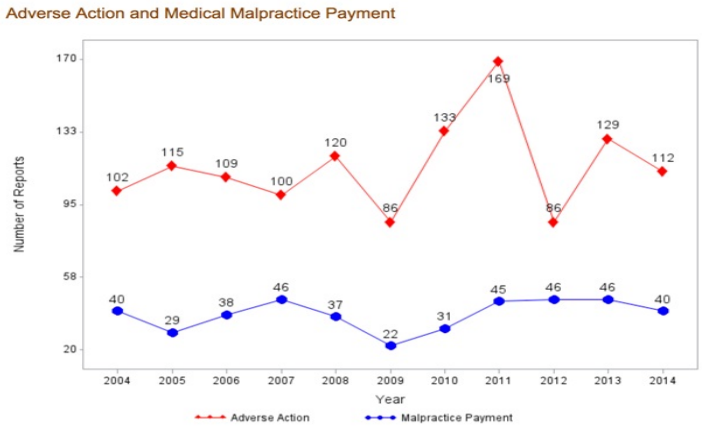

Figure 4: Malpractice payment claims against optometrists only in US 2004-14.

The Civil standard of liability

A two-stage test is applied. Firstly, what standard of care the optometrist should have exercised. Secondly, whether conduct fell below this standard.

• Reasonable professional/specialist

The standard expected at common law is usually adjudged from what the reasonable optometrist would have done given similar circumstances.

A patient in the US alleged that risk of corneal scarring was not communicated and debridement of a rust ring had been undertaken without consent. The court held that the scope of disclosure should be measured by the same reasonable standard expected of a professional acting in a community setting and thus the action failed [7].

In the UK, a trainee doctor was held to the standard of a reasonable qualified doctor. However, if a practitioner made claim to a specialist skill, a higher standard of care should be applied [8].

• Body of opinion

Bolam v Friern 1957 was monumental in the UK and established The Bolam test: whether the practice is 'accepted as proper by a responsible body of medical men skilled in that particular art' [9]. However, according to the Bolitho case the opinion must be 'rooted in logic' [10]. This modification allows for the court to decide which expert opinion is reasonable when determining which body of opinion to follow, generally favouring the majority view.

• Medical experts

Most developing nations rely on testimony from medical experts alone to establish this standard, particularly Malaysia and Singapore [11].

Nevertheless, an example of this is evident in a recent Fitness to Practice case in UK [12]. The panel considered opposing opinions from Mr. Evans and Mr. Eperjesi in relation to an optometrists' failure to perform cyclopegia on a symptomatic child with headaches. Eperjesi suggested various tests relating to the symptom. Evans' opinion was favoured, that those tests form the "gold standard" as opposed to that of the reasonably competent practitioner.

The Criminal standard of liability

The test here is higher – it is upon the prosecution to prove "beyond reasonable doubt" that the optometrist was careless and thereby 'grossly negligent' rather than simply falling below the reasonable standard.

The Supreme Court of Alabama found that a failure to refer papilloedema was considered a breach of civil duty, however, no injury was caused by the alleged breach as the patient was already under the care of a physician [13].

Historically, the House of Lords refused to impose criminal liability even where loss of life was Concerned [14,15]. In contrast, a

recent groundbreaking case considered the optometrist's failure to identify papilloedema - a sign of hydrocephalus - in an 8 year old boy leading to his tragic death within five months. Medical expert testimony from a neurosurgeon offered the opinion that his life could have been saved with appropriate surgery. The optometrist claimed to have viewed old, healthy photographs believing them to be the latest results. It was also claimed the child was photophobic and uncooperative, rendering ophthalmoscopy bootless. This was refuted by the claimants. The jury provided a guilty verdict of manslaughter and two year suspended sentence [16].

The New Reasonable Patient Test

In recent times the Bolam perspective has been inverted to apply to patients [17-19].

Lord Browne-Wilkinson in Bolitho specified that his judgement applied to questions of diagnosisand not to informed consent. In Australia, Bolam and Bolitho was overruled [20]. In a tragic case, following an operation on a partially-seeing eye, the patient developed sympathetic ophthalmia in the seeing eye. The risk of such a complication was considered to be 1 in 14000. The patient lost all vision in the treated eye, resulting in total blindness.

The court held in relation to informed consent that "risk should be disclosed if a reasonable person in the patient's position, if warned of the risk, would be likely to attach significance to it, or if the doctor is or should reasonably be aware that the particular patient, if warned of the risk, would be likely to attach significance to it." And that it is for the courts to adjudicate on what is the appropriate standard of care after giving weight to "the paramount consideration that a person is entitled to make his own decision about his life." In Europe, this may invoke Article 2 Human Rights: Right to Life.

This 'reasonable patient' test has not replaced Bolam in the UK. During a routine eye test if a
patient is not warned of the risks of dilation and experiences an adverse ocular reaction, the patient can demonstrate a breach to the duty according to Bolam.

Nevertheless, commentary from Chester v Afshar 2004; Pearce v United Bristol Healthcare NHS Trust 1998 and Wyatt v Curtis 2003 indicated that the judiciary may assess risk from the patient's perspective [21-23]. This finally happened in Montgomery v Lanarkshire Health Board 2015 [24].

The UK Supreme Court judgment stated that if the patient was fully informed of the material risks that she would have come to the same conclusion as the doctor and given consent. It may remove the need for medical expert witnesses to provide a standard of care for the courts consideration. Thirty years before, the american case of Ford v Ireland 1985 had already commenced this reasoning [25].

US Jurisdictions Applying the "Reasonable Patient" Standard	
Alabama	Massachusetts
Alaska	Mississippi
Arkansas	Oklahoma
California	Pennsylvania
Connecticut	Rhode Island
District of Columbia	South Dakota
Hawaii	Utah
Iowa	Vermont
Louisiana	West Virginia
Maryland	Wisconsin

Figure 5: Bartlett JD [2008] Clinical Ocular Pharmacology 5th ed St. Louis: Elsevier/Butterworth Heinemann.

Determining Causation - The 'but for' test

The leading case is Barnett v Chelsea & Kensington Hospital 1969 and for medical negligence [26]. Once a breach has been proven, the claimant must go on to prove 'but for' the negligence, the loss would not have occurred. In civil cases this basic test is factual causation - where the patient must establish a direct link between breach and damage.

When establishing legal causation, there must be no intervening act such that the chain of causation remains unbroken. The accused need not be the sole or even the main cause of the harm or victim's death but it must be a significant cause of the result. Due to the complexity of medical negligence cases this test is adopted and decided by the court.

• Novus actus interveniens - new intervening act

Where there is a new intervening act this may break the chain of causation removing liability from the defendant optometrist. The legal test applicable will depend upon whether the new act was that of a third party or an act of the patient.

• Loss of a chance

Where the claimant submits the defendant's conduct lost them a chance of avoiding harm or injury as opposed to causing the harm or injury itself, the courts have been reluctant at imposing or apportioning liability.

• Contributory negligence

It is sufficient for the patient to show that the breach made a "material contribution" or was more than "de minimus" [27-29]. The only exception to this established rule is for mesothelioma where an ommission led to an "increased risk" to cancer in Fairchild 2003 [30].

Fortunately, this exception has yet to be considered in UK ophthalmic cases.

Foreseeability

The type of injury not the extent should be foreseeable [31]. Vision loss is almost always foreseeable from most injuries sustained by malpractice and, therefore, is difficult to argue against.

The Defensive Optometrist: Against

Between the 18th and 20th century, american legislative history developed the requirement for a "informazione per il consenso" [32]. Historically, the legal test within the english jurisdiction had been based on Sidaway when it was determined unnecessary to warn a patient of every risk when taking consent. More recently, anglosaxon influence greatly determined the notion of a signed written consent form, despite the advent and notable dictum of the Montgomery case. In the US, conflicting opinions have given rise to concern for the practitioners involved in the field [33].

The uses of Anesthetics create a small risk of toxicity from desquamation of corneal epithelium. The effect is transient, therefore, should not require informed consent unless the epithelium is already compromised in which case opacification may lead to scarring.

Pupil dilation with mydriatics carries a small (0.00002% over 30's) but potentially serious side-effect: angle-closure or pupillary block glaucoma. For those few with narrow anterior chamber angles (2-6% of the population) the decision to dilate may be made jointly with patients following a discussion of benefits and risks of dilation [34]. However, mydriasis induced glaucoma is extremely rare such that, if it occurs, it would have happened anyway in the future at some time; cinema, midnight on a Sunday [35].

• Provide therapeutic care in conjunction with physicians most commonly in multidisciplinary settings or from separate offices eg Laser, Postoperative IOL, MECS, Intravitreal injections for Wet ARMD, Diabetic or Glaucoma shared care
• Comanage through a delegation of responsibility, acting in place of the physician to examine and monitor treatment via set protocol or directives
• Communicate in writing to the physician within a reasonable period following examination
• Physician remains primarily responsible for the px's well-being
• If the Optometrist is deemed negligent whilst acting within the scope of the set protocol the physician and optometrist share legal responsibility. If the optometrist acts outside the limitations provided by the protocol the optometrist is solely liable

Table 1: Co-management for the Optometrist (Adapted from Bartlett JD)

Evidence of safety
• Liew G, et al (2006) argue the case that mydriasis is safe in the Editorial of the British Medical Journal [36]
• In the Rotterdam study of 6760 people routine use of mydriatic eye drops in all participants aged 55 and over precipitated acute angle closure glaucoma in only two individuals, a prevalence of just 0.03% [37]
• The Baltimore Eye Survey of 4870 people showed no cases of acute glaucoma precipitated by Mydriasis [38]
• In a study of 1232 Chinese Singaporeans, Foster et al (2000) reported no cases of acute glaucoma after mydriasis. [39]
• A systematic review by Pandit & Taylor (2000) reported that out of an estimated 600,000 individuals who received mydriatic eye drops, 33 [0.006%] developed acute angle closure glaucoma, giving an estimated risk of one in 20,000. They state that pupil dilation is important for thorough fundoscopy and the risk of precipitating acute angle closure glaucoma with routine use of mydriatics is close to zero. They conclude that Tropic amide 0.5% is a safe agent for use in primary care. [40]

Table 2: [36-40]

Cyclopegia is generally reserved for suspected latent hyperopia, accommodative esotropia, amblyopia treatment etc. Care must be taken in deciding dosage and concentration of the agent used to reduce the chances of a toxic reaction. Assessment of pre and post dilation IOP and anterior chamber angles is routinely advised by the UK College of Optometrists [41]. However, the authors in Pukrushpan et al (2006) found that post dilation IOP was similar to pre dilation IOP in non-glauomatous patients despite significant angle narrowing [42]. They suggests it is not necessary to re-measure IOP following dilation in every patient but recommend gonioscopy to measure the angle width before dilation and post-dilation IOP only in selected cases.

The NHS Diabetic Screening programme in UK is less vigorous and does not require measurement of Van Herick angles nor post IOP's in the case of tropicamide.

The Defensive Optomerist: For

In Germany and the UK, a signed consent form is mandatory for treatment. However, in several countries across Europe: Belgium, Greece, Holland, Scandinavia and Spain the culture is amenable to oral consent . In Italy, there has been an exponential increase 43 in the frequency of medical malpractice claims relating to the issue of informed consent [43-45].

The General Medical Council and the Royal College of Ophthalmologists in UK have long promoted a patient orientated decision making approach [46,47]. If the patient declines to consent to a particular course of treatment, explicit evidence signed and dated would protect the practitioner from future responsibility. Of course, an alternative therapy should be offered where practiceable. If no such therapy exists, the practitioner is advised to adhere to patient autonomy.

Implicit consent arises when the patient's behaviour implies an acceptance to a given procedure. Where a patient refuses to co-operate in a clinically important test such as dilation, a certified letter outlining the importance of the procedure and the problems associated with its neglect may be sent by recorded delivery. However, repeating Lord Hewitt's canon requirement in application of the neighbour test "and the patient submits to his discretion" the failure to submit, for argumentative sake, could nullify the patient's status as a neighbour in negligence law. Simple refusal to continue the duty of care (by abandoning the examination) may offer practicality over written communication to a non-compliant individual.

Failure to perform a key diagnostic test (tonometry, dilated fundoscopy or visual fields) when clinically indicated forms a greater number of complaints, particularly where mydriatic agents could have been used for diagnosis. This may lead to misdiagnosis of retinal detachment, open-angle glaucoma and tumor's affecting

the visual system. Routine use of advanced computer technology such as Optomap, OCT, RTA or HRT II can help avoid such scenarios.

Optometrists are not required to perform an exhaustive list of tests. When faced with an asymptomatic patient, dilation is often considered unnecessary, and failure to detect a silent tumour may not be negligent. However, US cases have set a precedent whereby optometrists may be held liable to the same medical standards of duty and liability as ophthalmologists even for silent tumours. Considering the impact of Wilsher v Essex, British optometrists offering specialist services such as independent prescribing, glaucoma referral refinement, diabetic referral refinement, minor eye conditions or intravitreal injections for wet armd - such as in Copenhagen - will be exercising a medical standard of care and thus risk greater liability.

Described as the "eye-opening case" Keir v United States (1989) involved an asymptomatic 4-Year-old esotrope with retinoblastoma [48]. The court held that an optometrist is required to conduct a dilated fundus examination with the binocular indirect ophthalmoscope at the initial visit and periodically thereafter. In Fairchild v Brian (1977) the symptomatic patient with visual acuity reduced to 20/40 - believed to be due to cataract - was later found to have a RD secondary to Von Hippel-Lindau tumor [49]. Visual field was unfortunately overlooked.

Therefore, dilated fundoscopy should be routine for symptomatic patients (especially with reduction in visual acuity) to rule out secondary pathology, whilst IOP and visual fields may also be prudent regardless of age. In some states pupillary dilation is required by law for all initial eye exams.

• significant myopia
• aphakia, pseudophakia
• cataract
• recent yttrium-garnet capsulotomy
• glaucoma therapy with strong miotic agents in myopic eyes
• lattice degeneration
• blunt trauma
• rd history in fellow eye
• proliferative retinopathy (sickle cell, diab, reinal vein occlusion)
• PVD symptoms (7-15% have retinal tear, 1/3rd progress to RD)

Table 3: Dilation necessary: Adapted from Bartlett JD.

• Provide a higher standard of care than the reasonable optometrist (medical = ophth) above and beyond the statutory duty
• Reduce likelihood of negligence claim esp for the most frequent conditions: Glaucoma, Tumours, RD
• Avoid missing rare pathology in fellow asymptomatic but at risk eye
• Protect the public
• Protect own license to practice as well as reputation of the profession

Table 4: Arguments For the Defensive Optometrist.

• Overzealous attitude may cause unnecessary discomfort or anxiety (consent for mydriasis)
• Reasonable patient standard could reduce burden of informed consent
• Written informed consent only required for cyclopegia and risks of surgery
• Higher standard of care requires organised education and training (pharmaceutic agents)
• Selection of tests allows for the exercise of medical intuition and appropriate purpose

Table 5: Arguments Against the Defensive Optometrist.

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