



Risks in the Optical Profession

Final Report

A report for the General Optical Council by:

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EXECUTIVE SUMMARY

Introduction

- 1 This report presents an investigation and assessment of the competency risks inherent in optical practice for optometrists and dispensing opticians, as well as any contextual factors that may influence the likelihood of these risks. It has been compiled as part of the General Optical Council's (GOC) development of a revalidation process — as directed by the Government's Non-medical Revalidation Working Group — and will inform the risk profiling of its members.
- 2 There are a number of types of risk inherent in the optical profession. These include:
 - (a) Clinical risks — risks to patients arising from the nature of diseases or conditions, and the associated consequences.
 - (b) Competency risks — risks resulting from practitioners lacking the necessary skills or knowledge to diagnose and manage diseases and conditions, or to use appropriate equipment.
 - (c) Conduct risks — risks stemming from the behaviour of practitioners, either through negligence or inappropriate behaviour.
 - (d) Contextual risks — features of the environment in which a practitioner operates that may increase the scope for risk, or influence the severity or likelihood of clinical and competency risks; for example, isolated practice.
 - (e) Systems risks — risks arising from inadequate systems, such as the absence of checks and inspections or poorly managed businesses.
- 3 The main focus of this research is on competency risks — those risks arising from some form of deficient practitioner skill and hence that revalidation may have the ability to address. Although related, evidence of clinical risk does not necessarily support the need for revalidation, for example if there is no evidence of practitioners increasing this type of risk through their own lack of knowledge or skill.
- 4 The majority of the risk areas presented in this report relate to optometrists', rather than dispensing opticians', scope of practice. Whilst the same research efforts have been undertaken for both professions, the literature and discussions with the optical community (including professional bodies representing dispensing opticians) have not highlighted any substantial areas of risk relating to dispensing opticians. In other words, the work that dispensing opticians do is relatively low-risk — indeed, they are not required to be registered with the GOC for their baseline scope of practice for this reason. The areas for which opticians are required to be registered, such as dispensing contact lenses and to children, do contain some evidence of competency risks, and these are discussed where relevant.



Research Methods

- 5 Research for this study consisted of a literature review, analysis of available data and discussions with the optical community.
- 6 The literature review involved the examination of academic papers and medical journal articles, publications from professional and educational bodies, and any other relevant sources such as legislation, information from international sources and appropriate websites. In general, the available literature is dominated by articles about the nature of optical diseases and progress in treatment. Very few address competence issues and risks influenced by optical professionals.
- 7 Available data on risk was collected and analysed, namely Fitness to Practise data from the GOC, complaints data from the Optical Consumer Complaints Service (OCCS) and information on insurance claims from professional bodies. These data, although useful in highlighting general areas of potential risk, were complemented with discussions with the optical community for the purpose of a comprehensive risk assessment.
- 8 An extensive engagement programme was carried out during which a range of stakeholders in the optical community were approached. These included:
 - (a) Academics
 - (b) Professional bodies for both optometrists and dispensing opticians;
 - (c) Contracting bodies such as the Department of Health and PCTs;
 - (d) Practitioners and optometric businesses;
 - (e) Recipients of complaints, for example the GOC Fitness to Practise team and the OCCS;
 - (f) Educational and examining bodies such as the College of Optometry and the Royal College of Ophthalmologists; and
 - (g) Optometry Scotland and educational institutions in Wales.

Results of the Research

- 9 The examination of literature and available data and the consultation with academics and other stakeholders has highlighted a number of areas of risk in optical practice. These have been separated into two categories: 'adverse events' refer to areas of competency that, together with clinical risks, present a risk to patient health and safety; 'contextual factors' refer to factors which make such risks more or less likely, or the effects of the risks greater or lesser.



Adverse events

- 10 In many cases the main underlying risk is purely a clinical one, brought about by the nature of the disease and limits in current medical knowledge, and not due to incompetence, negligence or lack of knowledge on the part of the practitioner. All areas of risk are presented and the extent to which they are influenced by practitioner action is discussed.
- 11 **Misdiagnosis or mismanagement of glaucoma.** Glaucoma is a potentially sight-threatening disease. Any damage caused is irreversible, but the disease can be treated (and the damage halted) through treatment or surgery. In most cases symptoms are painless and set in slowly, and thus optometrists have the responsibility to carefully examine at-risk patients or those with suspected symptoms. For accurate diagnosis and referral of glaucoma it is recommended that intraocular pressure, visual fields and the optics disc are all assessed and measured, with the first two tests being repeated.
- 12 Research has revealed that the main risks here are optometrists failing to conduct all necessary tests for glaucoma, or failing to identify a patient from a key risk group. This finding is also supported by evidence from the GOC Fitness to Practise hearings. The risk of an optometrist missing the disease completely is thought to be much lower, and there are no studies that explicitly assess this risk, nor any evidence from the available data. There appears to be some scope for revalidation to improve practitioners' knowledge of both the importance and mechanics of conducting glaucoma tests (including the use of appropriate equipment), as well as to refine decision-making related to the diagnosis and referral of the disease.
- 13 **Misdiagnosis or mismanagement of retinal detachment.** Retinal detachment is a rare but sight-threatening event which occurs when the retina becomes separated from the underlying tissue.¹ Presenting symptoms can be elucidated by the optometrist taking careful history and recording patient symptoms, and by looking for signs during the examination. The difficulty in diagnosis and the serious consequences of a detached retina mean that optometrists generally refer any suspicious cases to ophthalmologists.
- 14 There is no pressing evidence of significant practitioner competency risk, despite the serious clinical risk posed by a detached retina. However, given the importance of recording patient history and symptoms, and findings of related research, there may be room for targeted CET (continuing education and training) in examination techniques, including the taking of patient history and the knowledge of developments in symptom recognition.

¹ College of Optometrists (2009) 'Information for the Public: Detached Retina' http://www.college-optometrists.org/index.aspx/pcms/site.Public_Related_Links.Common_Eye_Diseases_and_Problems.Detached_Retina/



- 15 **Spectacle non-tolerance.** Adverse reactions to optical prescriptions, known as ‘non-tolerances’, do not constitute a serious risk to adults but they are not uncommon and can have unwanted consequences. Non-tolerances are the responsibility of both dispensing opticians and optometrists. Whilst there is no evidence of significant practitioner competency risks that could warrant revalidation in this area, it has been highlighted that non-tolerances should be audited in every practice, and any outliers (for example a particularly high incidence attributable to one practitioner) monitored.
- 16 **Misdiagnosis or mismanagement of diabetic conditions.** Eye problems are among the most significant complications of diabetes, with the most serious being diabetic retinopathy. Retinopathy does not present with symptoms until relatively advanced and, given the fact that rapid treatment (surgery) is key to preserving sight, it is important that diabetics’ eyes are closely monitored.
- 17 There is little evidence of misdiagnosis or mismanagement of diabetic eye conditions and, although the risks associated with the diseases and conditions are high, practitioner risk appears to be low. The identification of diabetic patients via GP and nurse visits and the screening of diabetics for retinopathy mean that optical practitioners are most often aware of the risk profile of the patient, thus minimising the risk of missing a diagnosis. Furthermore, optometrists are generally only involved in the treatment of diabetic conditions if they have experience in this area and it falls within their own scope of practice.
- 18 **Misdiagnosis or mismanagement of macular degeneration.** Age-related macular degeneration (AMD) is the leading cause of vision loss for people over the age of 50 in the Western world. There are two types of AMD: the ‘dry’ form and the more severe ‘wet’ form. Currently only wet AMD can be treated, and this requires early detection and rapid treatment.
- 19 The main risk facing practitioners is failing to make timely diagnosis of wet AMD. Diagnosis can be complicated by the difficulty in separating out more than one age-related condition. It may be advisable to stipulate some form of revalidation in this area. However, given the age-related nature of the disease, practitioners’ scope of practice (in terms of patient profiles) should be taken in to account.
- 20 **Contact lenses.** There are a number of risks to wearers of contact lenses, including corneal ulcers and keratitis. Most research studies reporting keratitis in contact lens wearers link it directly with poor patient hygiene, usually as a result of poor compliance with the practitioner’s instructions for lens care.
- 21 The importance of hygiene raises the necessity for dispensing optometrists and opticians to be very clear in the instructions they give to patients. Communication skills and record keeping are two important competencies here. It is not clear whether this area warrants revalidation (particularly for dispensing opticians who, if holding a contact lens speciality, must dedicate six points to contact lens CET), but certainly the importance of



communication and record keeping must be emphasised, possibly as an overarching revalidation topic.

- 22 **The management of child patients.** The management of child vision, both by optometrists and dispensing opticians, can be more risky than that of adult vision as errors in prescriptions or the dispensing of spectacles and lenses can have long-lasting effects on children's sight and affect other areas such as the absorption of information and learning development.
- 23 There is little evidence of clinical incompetence on the part of registered optometrists or dispensing opticians in the handling of children. There is more anecdotal evidence of problems arising when dispensing to children is undertaken by unqualified or unregistered practitioners, but this is outside the scope of our research. As with a number of areas in optical practice, practitioners will generally not take on a child management case unless this is an area with which they are comfortable. That said, there may be room for revalidation for those practitioners who may be required to attend to children occasionally (for example when the option for referral is limited, such as in isolated practice).
- 24 **Independent prescribing.** Independent prescribing is a new area of optometry, for which optometrists must undertake additional training and accreditation. Among the risks in this area of practice are the implications of optometrists not understanding the limits of their own competence, particularly as they will have access to a large range of medicines. Independent prescribing is thought to most often take place in a hospital setting, where the scope for supervision is arguably greater.
- 25 At this stage it is difficult to evaluate the potential professional competency risks that would warrant revalidation. CET and CPD (continuing professional development) in this area are currently being developed, and if optometrists are required to obtain training or development points in independent prescribing then this may obviate the need for additional revalidation.
- 26 **General issues not specific to conditions or diseases.** Whilst our research did not identify a major area of concern in terms of practitioner competency, the idea was put forward by some stakeholders that "decision-making" (i.e. the whole process of seeing a patient, determining appropriate tests to conduct, identifying any conditions, deciding on the next steps and deciding on the most appropriate treatment and who to administer it) could be improved, and that this could be achieved through revalidation. Developing good decision-making skills can be difficult, particularly concerning rare conditions. Suggestions were made for training in order to embed the necessary skills. The adherence to care pathways was also highlighted as an important means of supporting good decision-making (with or without training).
- 27 **Record-keeping and communication skills.** Independently of the point raised above in the context of contact lenses, these were highlighted as important areas that dispensing opticians and optometrists could improve on, either through revalidation or CET events.



- 28 **Clinical governance.** This refers to the overall approach to ensuring and improving the quality of patient care, and relates to factors outside of optometrists' core competencies, such as supervising optical assistants and reporting mistakes and near misses. However, we feel that the scope for revalidation to address these issues is limited, and we discuss them for completeness only.

Contextual Factors

- 29 A number of contextual factors were investigated to identify a particular type or scope of practice that may increase the likelihood or prevalence of the risks discussed above. Some of these factors apply only to optometrists, but the majority are relevant for both optometrists and dispensing opticians.
- 30 **Length of time in practice.** The length of time in practice does not appear to pose a large risk, either for newly qualified professionals or those who have been qualified a long time. However, practitioners who have been qualified a long time would benefit from the circulation of developments in knowledge and equipment, and the GOC's CET programme could assist in this regard by awarding CET points for the studying of new areas of knowledge so that all practitioners are kept up to date with new technologies and diagnoses. This would require input from professional and educational bodies, and should be sufficiently broad so as to enable practitioners to focus on innovations within their own areas of practice. This would be particularly important for practitioners operating in isolated areas, as discussed below.
- 31 **Locums.** There is conflicting opinion regarding the degree of risk posed by locum optometrists and dispensing opticians. On the one hand, there is the potential for reduced accountability and scope for redress if practitioners move from practice to practice. On the other hand, locums can gain a wider range of experience by working in many different environments. In common with many other contextual factors, poor performance is more likely to be related to the individual practitioner than to the nature of his or her employment, and many of the problems here appear to relate more to systems and conduct issues than competence. The scope for revalidation to address the potential problems therefore seems low. It may, however, be useful for locums to build up a portfolio of references from *all* employers to ensure that any poor performance is recorded and addressed.
- 32 **Isolated practice.** Isolated practice refers to those practitioners who do not engage with others, and does not necessarily refer to geographically isolated or sole practitioners. The problems with isolated (or disengaged) practitioners is they are not exposed to supervision or review by colleagues, and mistakes or areas for improvement may go unnoticed. There are also no opportunities for shared learning of successes or failures, widely identified as being particularly useful in developing knowledge. To counteract the effects of isolated practice revalidation could usefully consist of a requirement for more interaction with other practitioners and shared learning. This could take the form of peer review, group training or group CET events.



- 33 **Domiciliary care.** There are a number of areas of domiciliary care that could potentially pose risks to the care of patients. These include difficulties in elucidating information given the reduced capabilities of many patients and the nature of portable equipment; negative effects of time pressures; and the higher risk-profile of the patient group. Training regarding the particulars of domiciliary care is only provided on the job, with no external accreditation scheme. However, it is not clear that there is much scope for revalidation specifically related to domiciliary care. It may be appropriate to ensure that practitioners in this area of practice are up to date in those conditions particularly relevant to elderly patients such as AMD.
- 34 **Patient profiles.** Certain patient groups are at higher risk of developing sight-threatening eye conditions (such as the elderly, mentioned above). Practitioners who operate in a particular area where the demographics imply more exposure to certain conditions could be candidates for some form of revalidation. An example would be to ensure that all domiciliary optometrists and opticians are up-to-date with low-vision aides. A counter argument, however, has been made that practitioners constantly exposed to certain conditions are likely to be experienced in the diagnosis and management of these diseases and so pose a lower risk. It therefore seems more proportionate to encourage practitioners to undertake some CET directly related to their scope of practice or patient profiles, than to have this as a basis for risk profiling.

Conclusions and Recommendations

- 35 Table 1 presents a summary of the 'adverse events', and includes a high-level assessment of the clinical risk, the practitioner (or competency) risk, any related contextual factors, and the scope for revalidation.

**Table 1: Summary of Practitioner and Contextual Risks Relating to Adverse Events**

Adverse Event	Clinical Risk	Practitioner Risk	Related Contextual Factors	Scope for Revalidation
Glaucoma	High	Medium	Patient profile (age and ethnicity) Domiciliary care (related to patient profile; accuracy of equipment) Length of time in practice (being up to date with equipment and testing techniques)	Medium. Largely concerns appropriate tests and referral refinement.
Detached retina	High	Medium	Length of time in practice (being up to date with equipment and testing techniques)	Medium/low. Largely concerns eliciting and recognising symptoms.
Spectacle non-tolerance	Low	Low	Length of time in practice (less experience may result in greater incidence of non-tolerances) Isolated/sole practitioners (those that do no work with dispensing opticians and may not be up to date with appliances) Locums (not around to learn from re-visits)	None. However, outside of revalidation auditing could be promoted as good practice.
Diabetic conditions	High	Medium/low	Patient profile (age and diabetic) Domiciliary care (patients may not have access to screening programmes)	Medium/low. Perhaps include targeted CET in this area.
Macular degeneration	Medium (more so for the wet kind as dry cannot be treated)	Medium/low	Patient profile Domiciliary care	Low. Mainly concerns distinguishing between AMD and other age-related conditions.
Contact lenses	Medium	Low	Isolated/rural practice (less likely to refer to more experienced colleague) Locums (may not be around for after care)	Low. Largely concerning communication of hygiene regimes.
Children	Medium	Low	Patient profile Isolated/rural practice (less likely to refer to more experienced colleague)	Low. Target CET in this area.
Independent	Medium/high	Low/not	Most likely to be carried out in	Low. Area of



prescribing		known	hospital setting.	practice should be monitored.
Decision-making	N/A	Medium	Particularly important for more rare conditions where opportunity for refinement is less frequent.	Medium. Increase exposure to cases, either in practice or through simulation.
Communication	N/A	Low	Particularly important for child care, contact lenses, suspected retinal detachments, spectacle non-tolerances, locums and domiciliary care.	Low. Focus CET on the importance of communication, with emphasis on areas highlighted.
Record-keeping	Not classified as a risk		Particularly important for Domiciliary care; Locums; contact lenses	None.

- 36 This research has not identified any major risks in the optical profession. The types of risk identified are limited to practitioners not conducting all appropriate eye health tests or not eliciting full patient symptoms, and issues around communication. There is no evidence of high risk due to gross mismanagement or misdiagnosis of eye health conditions.
- 37 That said, there are some clinical areas that should receive more attention through revalidation. These are those areas where a high clinical risk is combined with some degree of practitioner risk. These include glaucoma, retinal detachments, macular degeneration and diabetic eye conditions.
- 38 There are a number of lesser risks that involve both a lower clinical and practitioner risk. These include contact lens fitting, child care and communication skills.
- 39 No contextual factors were identified as being of particularly high risk, although there is some risk associated with isolated or disengaged practitioners, those who have been qualified a long time, and locums.

Recommendations for revalidation and risk profiling

- 40 Revalidation could usefully focus on improving decision-making in the higher risk areas (glaucoma etc). This could be done through training that focuses on both decision-making skills and the handling of the specific conditions. Any accreditation or tests to ensure practitioner competence could fall within the training framework.
- 41 The areas of lower risk could be usefully addressed through an enhanced CET scheme, for example by requiring all optometrists to undertake a certain proportion of CET points in these areas to ensure that they keep up to date.
- 42 Revalidation could also consist of a requirement to attain a proportion of CET points through an interactive mode (such a peer review or workshops) to address the problems associated with disengaged or isolated practice.



- 43 There are a number of arguments against basing revalidation on detailed risk profiling of individual registrants, either in terms of their scope of practice or in terms of contextual factors. Requiring registrants only to be revalidated in those areas in which they do the most work will not necessarily address the higher risk areas identified at paragraph 37. Limiting revalidation to scope of practice also raises difficulties by stipulating which practitioners can work in which clinical areas, which could result in future skills shortages by compartmentalising optometrists. It may be useful, however, to encourage or require practitioners to undertake some CET that is directly related to their areas of practice or patient profile.² Regarding contextual risks (such as disengaged practitioners, those who have been qualified a long time, and locums), it is likely that requirements for all optometrists regarding modes of CET and engagement with clinical developments will be more practical, and will still address these particular contextual issues.
- 44 Finally, given the low risk identified in the research regarding dispensing opticians it seems appropriate that any revalidation of these practitioners should be as “light touch” as possible. Areas of focus should be some requirement to undertake targeted CET in areas such as child care and low vision (i.e. those areas of practice for which dispensing opticians must be registered with the GOC),³ and possibly stipulations of CET modes as discussed above.

² This would be in addition to any CET focused on the higher risk areas, and practitioners would not necessarily need to be ‘tested’ or accredited.

³ And continue with the additional CET for contact lenses



1 INTRODUCTION

- 1.1 This report presents an investigation and assessment of the competency risks inherent in optical practice for both optometrists and dispensing opticians. It has been compiled as part of the General Optical Council's (GOC) development of a revalidation process, as directed by the Government's White Paper, *Trust, Assurance and Safety*⁴. The Government's Non-medical Revalidation Working Group has stipulated that risk profiling be carried out in each profession, and that this should be evidence-based wherever possible. Risk assessment should consider the impact of 'competency failure' for patient health and safety, as well as any contextual factors which may make competency failure more or less likely.
- 1.2 A description of the aims and focus of the research is presented in Section 2, with details on research methods in Section 3.
- 1.3 Section 4 provides an overview of areas of risk and presents preliminary findings from available quantitative data. As this evidence is not sufficient to support comprehensive risk assessment, further research in the form of a literature review and engagement with the optical profession has been conducted. The results of this research are presented in Section 5, where the risks associated with adverse events are discussed, and in Section 6, which covers the contextual risks.
- 1.4 Section 7 provides a summary of the evidence and the implications this has for risk profiling and revalidation.
- 1.5 Appendix 1 to this report contains additional information, including an expanded literature review, more detailed data analysis, description of other sources of information and a list of stakeholders with whom we have spoken. Appendix 2 presents our references.

⁴ Department of Health (2007) 'Trust, Assurance and Safety: the regulation of health professionals'.



2 SCOPE OF THE RESEARCH

Aims and Focus of Research

- 2.1 The aims of this research are to investigate the areas of optical practice that may present a significant risk to patient health and safety, and to assess any contextual factors likely to influence the severity or likelihood of these risks.
- 2.2 We then use this research to make recommendations on the nature of revalidation and the feasibility of establishing risk profiles for each registrant.
- 2.3 Revalidation will be against the core competencies that practitioners are required to demonstrate before registering with the GOC. This research therefore highlights the core competencies related to each area of risk, against which registrants will be revalidated.
- 2.4 There are a number of types of risk inherent in any medical profession. These include:
 - (a) Clinical risks — risks to patients arising from the nature of diseases or conditions, and the associated consequences.
 - (b) Competency risks — risks resulting from practitioners lacking the necessary skills or knowledge to diagnose and manage diseases and conditions.
 - (c) Conduct risks — risks resulting from the behaviour of practitioners, either through negligence or inappropriate behaviour.
 - (d) Contextual risks — features of the environment in which a practitioner operates that may increase the scope for risk, or influence the severity or likelihood of clinical and competency risks. For example, isolated practice.
 - (e) Systems risks — risks arising from inadequate systems, such as absence of checks and inspections or poorly managed businesses.
- 2.5 The focus of this research is on competency risks — those risks arising from some form of deficient practitioner skill that revalidation may have the ability to address. It will therefore be necessary to carefully disentangle the degree to which competency risks contribute to clinical risks to ensure that any revalidation applies to only those risks that it can effectively address. Evidence of serious clinical risk (such as the risk and consequences of a detached retina) will not necessarily support the need for revalidation, for example if there is no evidence of practitioners increasing risk through their own lack of knowledge or skill. That said, it is likely that the clinical risk will influence the revalidation decision to some extent, as incompetence will have more serious consequences in areas of high clinical risk.
- 2.6 A second area of focus will be contextual factors that may influence the severity or likelihood of a competency risk.



Outline of Revalidation

- 2.7 The details of revalidation have not yet been finalised by the GOC, and will depend, in part, on the results of this risk assessment. As a preliminary indication, the GOC envisage that revalidation would consist of collecting information from registrants to determine their risk profile, and then having a requirement for an individual's continuous education and training (CET) to include events relevant to this risk profile or scope of practice.
- 2.8 In this report, we use the term 'revalidation' in a broad sense to include possible additional training or CET, i.e. this report does not assume that the method of revalidation is restricted to that currently proposed.

Areas of Practice and Core Competencies

Areas of practice

- 2.9 For the benefit of lay readers we detail here the distinction between an optometrist and a dispensing optician, and describe the additional specialities that each can pursue.⁵
- 2.10 **Optometrists** examine eyes, test sight and prescribe spectacles or contact lenses for those who need them. They also fit spectacles or contact lenses, give advice on visual problems and detect any ocular disease or abnormality, referring the patient to a medical practitioner if necessary.
- 2.11 Optometrists may also share the care of patients who have chronic ophthalmic conditions with a medical practitioner. Once qualified, optometrists can undertake further training to specialise in certain eye treatment by therapeutic drugs. These specialities include:
- (a) Additional Supply — optometrists qualified to write orders for, and supply in an emergency, a range of drugs in addition to those which can be ordered or supplied by a normal optometrist.
 - (b) Supplementary Prescribing — optometrists qualified to manage a patient's clinical condition and prescribe medicines according to a clinical management plan set up in conjunction with an independent prescriber, such as a GP or ophthalmologist (i.e. for the treatment of chronic ophthalmic conditions).
 - (c) Independent Prescribing — optometrists able to prescribe medicines independently of any medical plan from a doctor. Qualified independent prescribers will take responsibility for the clinical assessment of a patient, establish a diagnosis and determine the clinical management required, including prescribing where necessary.

⁵ General Optical Council (2009) 'What is an optometrist/dispensing optician?' http://www.optical.org/en/our_work/Education/Careers/Pre-registration_home.cfm



- 2.12 All optometrists have to be registered with the GOC in order to practice in the UK. Optometrists holding any of the above specialities must be registered for these specialities.
- 2.13 A **dispensing optician** advises on, fits and supplies the most appropriate spectacles according to a prescription provided by the optometrist, after taking account of the patient's visual, lifestyle and vocational needs. Dispensing opticians also play an important role in advising and dispensing low vision aids to those who are partially sighted and in advising on and dispensing to children where appropriate.
- 2.14 Opticians do not have to be registered with the GOC unless they provide services to children or the partially sighted, or have a contact lens speciality. This latter speciality licenses the optician to supply and fit contact lenses (optometrists do not need a special licence to do this as it forms part of their overall competencies).

Other eye health professionals

- 2.15 There are other eye health professions that fall outside of the scope of GOC regulation.⁶ We list them here for completeness:
- (a) **Ophthalmic medical practitioners (OMPs)** are medical doctors specialising in eye care. Like optometrists, they examine eyes, test sight, diagnose abnormalities and prescribe suitable corrective lenses. OMPs are registered with and regulated by the General Medical Council.
 - (b) **Ophthalmologists** specialise in eye disease, treatment and surgery. Medically qualified, they mainly work in eye hospitals and hospital eye departments. Ophthalmologists are also registered and regulated by the General Medical Council.
 - (c) **Orthoptists** generally work with ophthalmologists in hospitals and in the community. They are concerned with eye problems relating to eye movements and the inability of the eyes to work together (such as squints and double vision). Orthoptists are registered with the Health Professions Council.
- 2.16 It is likely that the majority of the risk areas presented in this report will relate to optometrists' scope of practice. The work that dispensing opticians do is very low-risk (the reason they are not required to be registered with the GOC for their baseline scope of practice is that providing optical appliances to adults does not involve any material risks, i.e. the scope for damage to an adult of incorrectly dispensed glasses is minimal). The areas for which opticians are required to be registered, such as contact lenses and dispensing to children, do contain some inherent risks, and these will be discussed where relevant. Furthermore, discussions with the optical community (including professional



bodies representing dispensing opticians) did not highlight any substantial areas of risk relating to dispensing opticians.

Core competencies

2.17 One aim of this research is to assess how the risks in optical practice relate to the core competencies for qualification and registration as an optometrist and a dispensing optician, against which optometrists and dispensing opticians will be revalidated. This will involve:

- (a) Identifying those existing core competencies that correspond to risk areas and which will form the basis for revalidation.
- (b) Highlighting any risk areas not covered by core competencies and making recommendations on the inclusion of these in the revalidation process.

2.18 Core competencies describe the knowledge and skills an optometrist or dispensing optician must possess in order to register with the GOC and practise in the UK. There are competencies in four areas of practice: optometry; dispensing optics; contact lenses (for dispensing opticians); and therapeutic prescribing (for optometrists).

2.19 To gain a qualification in any of these areas trainees have to demonstrate that they are proficient in the associated core competencies. These core competencies also form the basis for the GOC's Continuous Education and Training (CET) scheme.⁷

2.20 We list the main core subjects for each of the four areas of practice. A more detailed breakdown of the competencies can be found on the GOC website.⁸

2.21 Optometry

- (a) Communication Skills — take accurate patient symptoms; give clear advice
- (b) Professional Conduct — keep clear records; make good referral judgements
- (c) Visual Function — refract patients; prescribe; manage children, partially blind
- (d) Optical Appliances — prescribe and dispense most appropriate visual appliances
- (e) Ocular Examination — use instruments and techniques to examine all parts of eye
- (f) Ocular Abnormalities — identify and manage abnormalities like cataract, glaucoma

⁶ College of Optometrists (2009) 'What is an optometrist?' http://www.college-optometrists.org/index.aspx/pcms/site.Public_Related_Links.What_is_an_Optomestrist/

⁷ CET sustains and maintains the professional knowledge and skills which would be achieved at the current entry level of competence.

⁸ http://www.optical.org/en/our_work/Standards/Standards_in_competence.cfm



- (g) Contact Lenses — insert and remove all types of lenses; provide aftercare
- (h) Binocular Vision — assess and manage patients with binocular vision

2.22 **Dispensing Optics**

- (a) Communication Skills — take accurate patient history; handle concerns or complaints
- (b) Professional Conduct — know laws and code of conduct; interpret patient records
- (c) Refractive Management — understand refractive prescribing and management decisions
- (d) Optical Appliances — interpret and dispense a prescription using appropriate appliances
- (e) Contact Lenses — know symptoms of serious contact lens complications
- (f) Low Vision — assess patients and dispense appropriate low vision aids
- (g) Ocular Examination and Technique — understand the use of instruments used in eye examinations and the implications of the results
- (h) Ocular abnormalities — recognise conditions requiring referral or emergency referral

2.23 **Contact Lenses**

- (a) Assess suitability of patient for contact lens wear
- (b) Select most appropriate contact lens for patient, and assess the fit
- (c) Select most appropriate complex lens for the patient
- (d) Instruct patients in all aspects of contact lens handling
- (e) Assess the progress in wear of a patient
- (f) Investigate and manage any aftercare issues
- (g) Assess the accuracy of the specification of contact lenses
- (h) Communicate effectively with patient
- (i) Comply with professional and legal requirements regarding the care of a contact lens patient



2.24 **Therapeutic prescribing**⁹

- (a) Clinical and Pharmaceutical Knowledge — has up-to-date clinical and pharmaceutical knowledge relevant to own area of practice.
- (b) Establishing Options — makes a diagnosis and generates management options for the patient. Follows up treatment.
- (c) Communication with Patients — establishes a relationship based on trust and mutual respect.
- (d) Prescribing Safely — is aware of own limitations, and able to justify prescribing decisions.
- (e) Prescribing Professionally — works within professional, organisational, and regulatory standards.
- (f) Improving Prescribing Practice — actively participates in the review and development of prescribing practice to improve patient care.
- (g) Information in Context - knows how to access relevant information — can critically appraise and apply information in practice.
- (h) The NHS Context — understands, and works with, local and national policies that impact on prescribing practice.
- (i) The Team and Individual Context — works in partnership with colleagues for the benefit of patients.

2.25 Our focus will be on the core competencies for optometrists and dispensing opticians, as these are the areas against which the majority of the GOC's register will be revalidated. Where applicable, and where in relation to the risks covered in this report, the core competencies for dispensing opticians specialising in contact lenses, or optometrists specialising in supplementary prescribing, will be included.

⁹ The core competencies for Independent Prescribing are the same as those for the Supplementary Prescribing speciality, although the training requirements do differ. More details regarding this can be found in Appendix 1.



3 RESEARCH METHODS

- 3.1 Research for this study consisted of a literature review, analysis of available data and discussions with the optical community.

Literature

- 3.2 Academics were approached in the first instance for advice on high-level risks within the optical profession and recommendations of suitable publications. Searches for other articles and relevant literature were conducted using Cochrane and PubMed data bases, web-based searches and the investigation of relevant websites.
- 3.3 The majority of articles read were either recommended by academics or cited in relevant papers. Keywords used in database searches included: adverse reactions; adverse events; optometry; glaucoma; retinal detachment; contact lenses; spectacle non-tolerances; misdiagnosis; risks; dangers.
- 3.4 A list of the main web-sites accessed and literature reviewed appears in Appendix 2.
- 3.5 In general, the available literature is dominated by articles about the nature of the diseases and progress in treatment. Very few address competence issues and the risks influenced by optical professionals.

Stakeholder Consultation

- 3.6 A range of stakeholders were approached throughout the study. These are presented in detail in Appendix 1, but included:
- (a) *Academics* were approached for high-level guidance at the beginning of the literature review, and later on for more in-depth discussions of the risks inherent in optical practice. They also helped to corroborate evidence obtained from other sources.
 - (b) *Professional Bodies* for both optometrists and dispensing opticians provided insights into risks and contextual factors, and assisted in the exploration of insurance claims as a source of evidence.
 - (c) Discussions with the *Contracting Bodies* such as the Department of Health and PCTs were largely limited to contracting issues and circumstances in which General Ophthalmic Service (GOS) contracts would not be awarded or revoked. Some insight into high-level areas of risk, as well as anecdotal evidence of the nature of these risks, was provided by PCT optometric advisors.
 - (d) *Practitioners and optometric businesses* provided information about everyday risks and methods of mitigating these.



- (e) *Recipients of complaints*, such as the GOC Fitness to Practise department and the Optical Consumer Complaints Commission, provided data on the number and scope of complaints received about optical professionals.
 - (f) *Educational and examining bodies* such as the College of Optometry and the Royal College of Ophthalmologists were approached for information on risks and insight on the relevance of current competencies and education.
 - (g) *Bodies in Scotland and Wales* provided information on different contract schemes and insight into general risks. In particular evidence on additional training and accreditation schemes in these countries was used to assess whether there exist competency shortfalls among English practitioners.
 - (h) *Parallel research* for the GOC into employer appraisal schemes was examined.
- 3.7 The GOC's Revalidation Working Group has also provided advice and feedback on the study, and input from attendees at the GOC's revalidation events also considered.¹⁰

Sources of Information

- 3.8 The rest of the report discusses the results of the literature review and stakeholder consultation. Here we present an overview of how useful the sources of information were, and highlight areas where information was not as forthcoming as we hoped.

Literature

- 3.9 The literature search did not yield much on risks related to optometrists. The majority of studies and articles dealt with medical risks and conditions and how to identify and treat these (for studies examining the dangers of glaucoma and debating the best methods of diagnosis). As the focus of this study is on those risks that are influenced by practitioner action and not the result of limitations in current medical knowledge, they were not immediately useful. However, where any articles made recommendations for areas of development for CET or Continuing Professional Development (CPD), these have been noted.

Information from academics, practitioners and educational advisors

- 3.10 This formed an integral part of the research. Information gathered from these sources provided the basis for further research into various clinical risks, and helped to identify any areas of these risks likely to be influenced by practitioner competence.

¹⁰ Events held in Cardiff, Manchester, London, Edinburgh and Belfast in February 2010



Insurance claims and profiling

3.11 Indemnity insurance is organised by most professional bodies for their members (such as the Federation of Ophthalmic and Dispensing Opticians (FODO), the Association of Optometrists (AOP) and the Association of British Dispensing Opticians (ABDO)). Insurance companies do not conduct risk profiling on an individual basis, and the main influence on premiums is the number of claims submitted each year by the profession. Information regarding insurance claims for some professional bodies has been used to inform this report, but on a strictly confidential and anonymous basis. No direct figures have been quoted.

Department of Health

3.12 The Department of Health's optical contracting department does not have much contact with cases involving optometrist risk: it is predominately concerned with contractors maintaining the terms of their contracts, and usually deals with issues relating to record keeping and other administrative requirements.

Fitness to Practise records

3.13 General Fitness to Practise data collected by the GOC are insufficient for our purposes of comprehensive risk profiling. Although complaints data do provide a useful idea of the issues of concern for the general public, placing too much weight on them in terms of risk assessment may lead to a distorted view of the areas that should be addressed through revalidation. This is discussed further in Section 4.

3.14 We have been through the publically available Fitness to Practise hearings (the results are again discussed later in the report) and drawn out trends regarding the types of complaint and reported levels of seriousness. This provides a high-level insight into some of the main issues regarding optical practitioners.

3.15 Additional sources of information that were explored are discussed in Appendix 1.



4 AREAS OF RISK

- 4.1 A summary of the areas of risk to be discussed in the report is presented here, along with an analysis of the available quantitative data.

Overview of Risk Areas

- 4.2 The examination of literature and consultation with academics and other stakeholders highlighted a number of areas of risk in optical practice. These have been categorised into two classes, namely 'adverse events' and 'contextual risks'. We present a summary of the risk areas identified; each class is discussed in more detail in the following sections.

- (a) Areas of competency that, together with clinical risks, present a risk to patient health and safety include:

- Misdiagnosis or mismanagement of glaucoma
- Misdiagnosis or mismanagement of retinal detachment
- Spectacle non-tolerance
- Misdiagnosis or mismanagement of diabetic conditions
- Misdiagnosis or mismanagement of macular degeneration
- Contact lenses
- The management of child patients
- Independent prescribing
- General issues not specific to conditions or diseases (decision-making, poor maintenance of records, and communication issues)

- (b) Contextual factors which make such risks more or less likely, or the effects of the risks greater or lesser, include:

- Length of time in practice
- Locums
- Isolated practice
- Domiciliary care
- Patient profiles



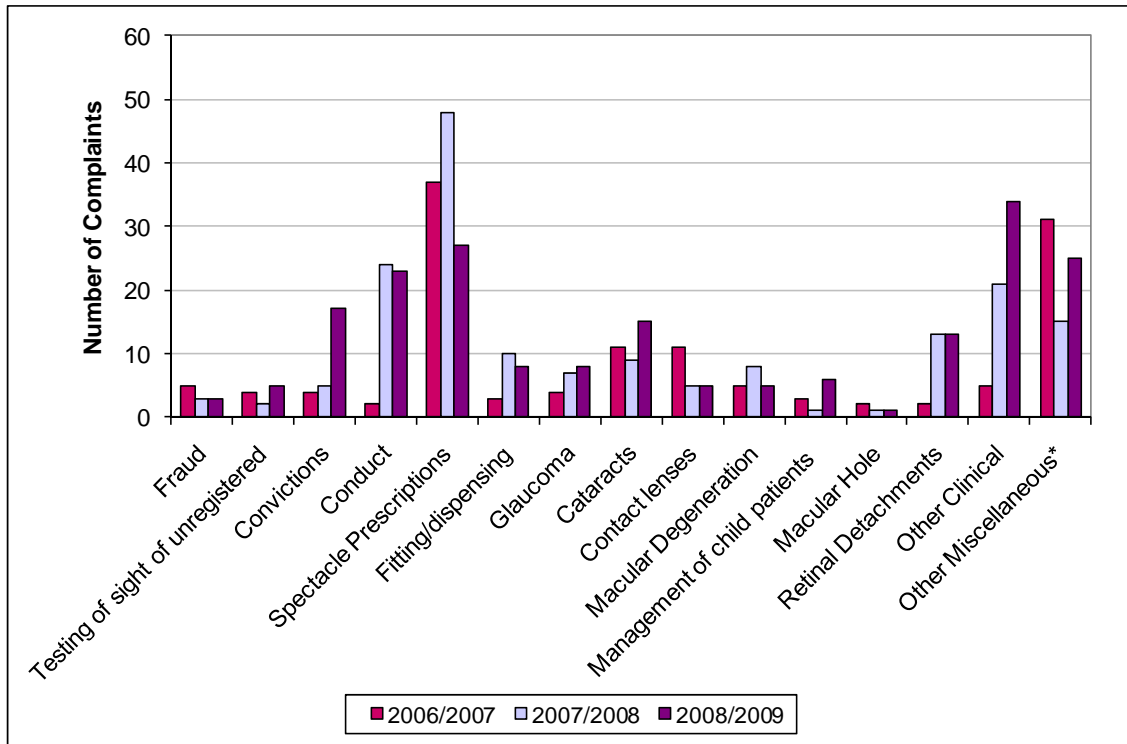
Fitness to Practise Data

- 4.3 Information on complaints and disciplinary hearings concerning GOC members is published in their annual report. The complaints data alone are not suitable for our purposes of comprehensive risk assessment as:
- (a) The data only relate to complaints lodged with the GOC, and as such may miss cases handled independently of the GOC by the professional bodies.
 - (b) The data may also miss out incidents of clinical malpractice or incompetence that were not noticed by the patient and thus complained about.
 - (c) Descriptions of complaints received are not available, and therefore it is not possible to assess the real risk behind them (for example, a complaint labelled 'glaucoma' could relate to anything from a misdiagnosis to merely a breakdown in communication).
 - (d) The data are not disaggregated by type of practitioner (e.g. locum; domiciliary provider) or type of employment (e.g. large multiple; independent practice) and therefore any analysis of contextual factors is not possible.
- 4.4 We have therefore not presented the GOC complaints data in great detail. A chart summarising the complaints over the past three years is presented below, with a more detailed description of this data to be found in Appendix 1. Whilst complaints data are useful in highlighting areas of concern for the public, they may lead to a distorted view of the main risks in optical practice as a complaint does not necessarily imply a real risk. For example, the majority of the complaints received concern spectacle prescriptions, which is not an area considered as high-risk in terms of practitioner competence by the optical community.¹¹

¹¹ Spectacle prescriptions are discussed in more detail in Chapter 5.



Figure 4.1: Reasons for Complaints 2005 - 2009



* For 2006/2007, includes among others, Advertising and Ocular Melanoma. For 2008/2009, includes among others, Ill-Health and Supervision of Students

Source: GOC Annual Reports

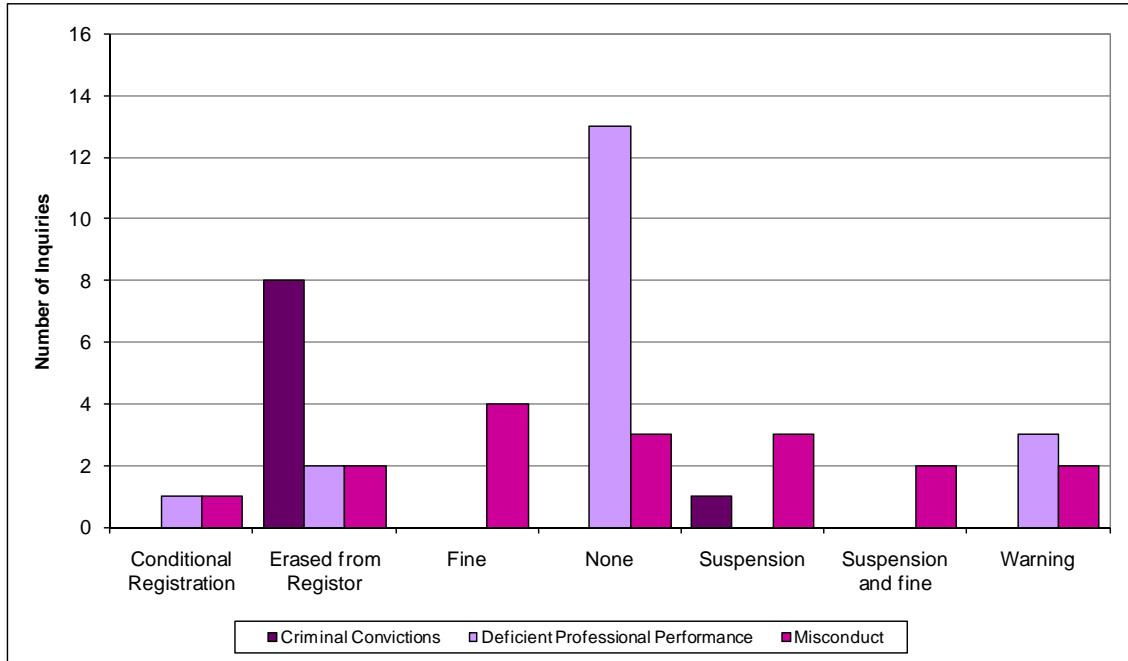
Fitness to Practise Hearings

4.5 Some illustrative evidence of risk areas is, however, available from Fitness to Practise Hearings. Complaints considered sufficiently serious progress to a Hearing where all evidence is considered and decisions are made regarding the culpability of the practitioner and the appropriate sanction. This data is more likely to reflect actual risks, as each case has been considered in detail, and deemed serious enough to warrant further investigation.

4.6 Analysis of the Fitness to Practise Hearings between January 2007 and October 2009 shows first that proven cases concerning clinical competency – termed ‘deficient professional performance’ in the chart – are very rare (out of 47 new inquiries conducted over the period, only 20 were related to clinical incompetence and of these, only seven were given a sanction) and second that the competency failures did not include outright misdiagnoses or damage, but were concerned with indirect risks such as the failure to perform certain tests.



Figure 4.2: Outcomes of Inquiry Cases 2007 – 2009



Source: GOC public hearings reports and EE analysis

4.7 The seven cases that did receive sanction over the period comprised the following charges:

- (a) Inadequate examination records
- (b) Failure to refer patient to ophthalmological opinion
- (c) Failure to conduct certain tests (mainly for glaucoma)
- (d) Tests carried out incorrectly
- (e) Lack of appropriate equipment for glaucoma testing
- (f) Failure to conduct mandatory ophthalmoscopy

4.8 More detailed analysis of the Fitness to Practise data is included in Appendix 1. The main information relevant to our research is that the majority of the sanctioned cases included glaucoma-related risks. Of further interest is that none of the cases concern dispensing opticians.

Other countries

4.9 The regulation of the optical professions in other countries was investigated to determine the feasibility of comparing fitness to practise results and drawing any distinctions in the main areas of risk. The countries covered were New Zealand, Australia and the United



States, considered to be the most comparable to the UK. However, due to the very small numbers of complaints received in New Zealand and Australia, and the lack of published complaints data from the US, we have not pursued our investigation further. More details are included in Appendix 1.

Insurance Claims

- 4.10 Indemnity insurance is a prerequisite for registering with the GOC. Professional bodies, such as FODO, AOP and ABDO, arrange indemnity insurance for their members. Information relating to this, such as statistics on claims and whether insurance companies undertake risk profiling, was investigated to see if it would shed further light on risk areas in optics.
- 4.11 Data on claims are strictly confidential and only general trends can be discussed. However, the available information does not suggest that insurance claims are a very useful source of information for risk profiling. This issue is discussed in more detail in Appendix 1.

Further Research

- 4.12 Although the data sources discussed here present interesting findings and do inform our risk profiling to some extent, they are too few to provide a comprehensive assessment of the possible risks (both adverse events and contextual factors) inherent in the optical profession. We have therefore had to rely on information from literature, academic experts and stakeholders to identify these risks. This further research represents the majority of our analysis, and is presented in the following two sections.



5 ADVERSE EVENTS

Introduction

5.1 The examination of literature and consultation with academics and other stakeholders has highlighted a number of areas of risk in optical practice. As previously mentioned, the focus of this study is on those risks that can be in some way influenced by the optical practitioner. In many cases, the main underlying risk is purely a clinical one, brought about by the nature of the disease and limits in current medical knowledge and not due to incompetence, negligence or lack of knowledge on the part of the practitioner. However, all areas of risk have been presented and the extent to which they are influenced by practitioner action discussed.

Structure of the section

- 5.2 In this section each adverse event will be presented under the following headings:
- (a) *Clinical risk* — the background to the disease or condition and its impact on patients.
 - (b) *Practitioner risk* — how the impact of the disease or condition is influenced by practitioner competence in reality.
 - (c) *Scope for additional training* — is there evidence of a lack of appropriate knowledge or competence that would support additional training, more focused CET or revalidation?
 - (d) *Relation to existing competencies* — does the risk area correspond to an existing core competency?

Adverse Events

Glaucoma

Clinical risk

5.3 Glaucoma refers to a group of eye diseases that damage the optic nerve, and are often associated with raised pressure within the eye. This leads to a reduction in the field of vision and, if untreated, can lead to blindness. Damage to the optic nerve is irreversible, but can be halted and the disease treated through medication or surgery. In most cases glaucoma sufferers will experience no symptoms until significant damage had occurred, although closed angle glaucoma is usually an acute onset presenting with pain and rapid vision loss.



- 5.4 Primary open angle glaucoma (OAG) is the most common form of glaucoma in the UK, accounting for 75 to 95 per cent of primary glaucomas.¹² The prevalence¹³ of OAG in the UK population aged over 40 is estimated at two per cent (approximately 1.5 million), with 542,000 estimated to have the disease and up to 65 per cent of cases undetected.¹⁴ Late detection is likely to be linked to the slow progression of the disease and absence of symptoms, and may result from patients not engaging with community eye care or from a failure of health professionals (GPs, optometrists, ophthalmologists) to identify the disease at an early stage.¹⁵ Prevalence rates rise significantly with age from 0.3 per cent at age 40 to 3.2 per cent at 70 years old. In Britain in 1993 OAG accounted for about one in eight new registrations for blindness.¹⁶
- 5.5 The most important risk factors for developing OAG are raised intraocular pressure (IOP), increasing age, black ethnicity and a family history of glaucoma. People who have diabetes or are very short-sighted are also more prone to the disease.¹⁷
- 5.6 Diagnosis and the referral of glaucoma have been shown to be more accurate when IOP measurement, visual field testing and optic disc assessment were all performed.¹⁸ To further increase the predictive value of referrals, it has also been recommended that IOP measurements and visual fields should be repeated.

Practitioner risk

- 5.7 Practitioner risks associated with glaucoma are related to the slow onset of symptoms, difficulties in detecting the disease and the low prevalence rates. Discussions with experts have revealed that the main risks here are optometrists failing to conduct all necessary tests for glaucoma, or failing to identify a patient from a key risk group. The risk of an optometrist missing the disease completely (i.e. the prevalence of false negatives) is thought to be much lower, and there are no studies that explicitly assess this risk, nor any evidence from available data.¹⁹

¹² Quigley, HA (1996) 'Number of people with glaucoma worldwide' *British Journal of Ophthalmology*, Vol 80, pp 389

¹³ Total number of cases of the disease in the population

¹⁴ Sheldrick JH, Ng C, Austin DJ and Rosenthal AR (1994) 'An analysis of referral routes and diagnostic accuracy in cases of suspected glaucoma, *Ophthalmic Epidemiology*, Vol 1 pp 31-38

¹⁵ However, it must be noted that the number of undetected cases does not in itself reflect a competency shortfall, given the clinical difficulty in identifying early symptoms.

¹⁶ Jay, JL and Murdoch, JR (1993) 'The rate of visual field loss in untreated primary angle open glaucoma' *British Journal of Ophthalmology* Vol 77, p 176

¹⁷ College of Optometrists http://www.college-optometrists.org/index.aspx/pcms/site.Public_Related_Links.Common_Eye_Diseases_and_Problems.Glaucoma/ Accessed October 2009

¹⁸ Bell RWD and O'Brien C (1997) 'Accuracy of referral to a glaucoma clinic' *Ophthalmic and Physiological Optics* Vol 17(1) p7-11 and Theodossiades J and Murdoch I (1999) 'Positive predictive value of optometrist-initiated referrals for glaucoma' *Ophthalmic and Physiological Optics* Vol 19(1) p62-67

¹⁹ The main reason for the low risk in the disease being missed completely is its slow progression, leaving sufficient time for it to be detected before very serious damage is done. Of course the failure of *early* detection is a risk, but this is extremely difficult to estimate this prevalence; a patient presenting with advanced progression of the disease may not have been to an optometrist before, or may not have had any of the symptoms or heightened risk factors that raised the need for testing.



- 5.8 A study into the quality of clinical optical care provides interesting insight into the content of optometric eye examinations for a patient from a higher-risk group — a presbyopic²⁰ patient of African ethnic descent.²¹ Out of the 100 optometrists visited by a standardised patient,²² 95 percent carried out optic disc assessment and tonometry (which conforms to the College of Optometrists' advice that patients over 40 should receive at least two out of three appropriate tests — tonometry, optic disc assessment and visual field testing) and 35 per cent carried out all three. Although the College's advice recommends at least two out of the three for patients over 40, a more clearly at risk patient should have all three done.
- 5.9 Areas of concern or surprise for the authors of this paper were that four optometrists did not carry out tonometry, and one did not carry out any form of optic disc assessment. The latter omission amounted to negligence as this test is a mandatory part of an eye examination.²³ Furthermore, only six per cent advised the patient of increased risk of OAG risk in those of African descent (although the authors do say this could reflect both lack of knowledge or just a reluctance to alarm the patient); five per cent discussed the increased risk of glaucoma with age; and 40 per cent made no reference to family history influencing the risk of glaucoma. The issue of communication with the patient is important both in terms of promoting patient health and safety, and for protecting the practitioner against any consequences of misunderstandings.
- 5.10 The authors suggested that future continuing professional development (CPD) could usefully focus on specific criteria and methods for glaucoma screening such as indirect ophthalmoscopy and contact tonometry, and specific referral criteria. Most importantly, they suggested that future CPD should emphasise predisposing factors for OAG, in particular the increased risk of glaucoma in people of African ethnicity.
- 5.11 There is currently no evidence of optometrists completely missing glaucoma through incompetence and, according to various experts, this is not a very high risk. A more realistic risk (as discussed above) is of optometrists not performing all of the appropriate tests for the diagnosis of glaucoma, either because they did not feel it was necessary, or through lack of knowledge, or because the NHS fee for the examination did not cover all the tests or necessary repeats.
- 5.12 Some optometrists have highlighted the current NHS General Ophthalmic Services (GOS) contracts in England as contributing to the issue of missed or non-repeated tests. For an optometrist to undertake a proper assessment of glaucoma risk in a patient before referring requires at least two and possibly three visits, which cannot be done under NHS

²⁰ Presbyopia is the diminishing ability to focus on near objects that comes with increasing age. A presbyopic is typically someone aged 40 years or older.

²¹ Shah *et al* (2008) 'Glaucoma detection: the content of optometric eye examinations for a presbyopic patient of African racial descent' *British Journal of Ophthalmology*, published online 5 December 2008.

²² A research methodology whereby an actor visits a number of optometrists and is trained to give certain information and record the content of the examination.

²³ Legal requirements defined in the Sight Testing (No 2) Regulations issued in 1998.



fees. Neither do the fees cover the time required to conduct all the tests, particularly as the mandatory sight test content is largely refraction-based. Optometrists therefore are likely to refer at the first indication (instead of risking missing a diagnosis) which leads to a perceived problem with over-referrals to the hospital eye services (HES).²⁴

- 5.13 The issue of over-referrals was investigated to see if it reflected a shortage of knowledge among optometrists in terms of diagnosing glaucoma. Further research has found this not to be the case. This research is presented in Appendix 1.

Scope for additional training

- 5.14 Recommendations for continuing professional development regarding the diagnosis and management of glaucoma patients from increased risk groups have already been mentioned. In addition, a number of programmes for improved glaucoma training among optometrists have been implemented in the UK.
- 5.15 For example, two studies report the impact of the new GOS contract in Scotland on glaucoma diagnosis and referrals.²⁵ One of the key aims of the NHS Eye Examination under the new GOS contract in Scotland is to reduce unnecessary referrals to the HES, and to monitor people at risk of developing the disease in the community. This represents an extended scope of practice for optometrists, and as such community optometrists throughout Scotland were required to be accredited through attending workshops for the four basic competencies: applanation tonometry, slit lamp biomicroscopy, thresholds visual fields, and Volk lens indirect ophthalmoscopy.²⁶ Accreditation under the new GOS contract is mandatory for community optometrists wishing to practice in Scotland.
- 5.16 The study conducted in Grampian²⁷ compared the diagnostic performance of these accredited glaucoma optometrists with that of routine hospital eye care (a junior ophthalmologist), against a reference standard of expert opinion.²⁸ The overall conclusions of the study were that trained optometrists provided satisfactory decisions regarding diagnosis and initiation of treatment for glaucoma. Agreement between the optometrists and expert ophthalmologists was substantial (89 per cent). Most disagreements occurred at the lower end of the severity scale and may not have had clinical relevance to the patients. The two patients requiring urgent referral were correctly identified. Among the 23 patients requiring non-urgent referral, two were missed by the optometrist and three by the junior ophthalmologist.

²⁴ More detail about NHS contracting issues can be found in the Appendix

²⁵ Azuara-Blanco A, Burr J, Thomas R, MacLennan G and McPherson S (2007) 'The accuracy of accredited glaucoma optometrists in the diagnosis and treatment recommendation for glaucoma' *British Journal of Ophthalmology*, Vol 91, p1639-1643; and Ang GS, Ng WS and Azuara-Blanco A (2009) 'The influence of the new general ophthalmic services (GOS) contract in optometrist referrals for glaucoma in Scotland.' *Eye* Vol 23, P351-355

²⁶ Optometry Scotland, cited in Ang et al (2009)

²⁷ Azuara-Blanco A, Burr J, Thomas R, MacLennan G and McPherson S (2007) 'The accuracy of accredited glaucoma optometrists in the diagnosis and treatment recommendation for glaucoma' *British Journal of Ophthalmology*, Vol 91, p1639-1643

²⁸ A consultant ophthalmologist with a special interest in glaucoma.



- 5.17 The study by Ang et al (2009) compared community optometrist referral forms and hospital glaucoma service notes for two six-month periods, one before and one after the implementation of the new contract. After the introduction of the new contract, there was a statistically significant increase in the number of true positive referrals (the proportion of patients requiring further follow-up by the hospital glaucoma service) from 18 to 31.7 per cent. There was also a statistically significant decrease in the number of false positive referrals (from 36.6 per cent to 31.7 per cent), referrals of OHT and patients discharged after the first visit.
- 5.18 The results of this research show that additional training in glaucoma testing and diagnosis has positive results. This implies that there is room within the current levels of training and qualification to improve glaucoma diagnosis. Given the aging population it is likely that optometrists will be faced with more and more glaucoma-suspect patients, which will add to the risk of misdiagnosis.²⁹
- 5.19 There have been other interventions to improve glaucoma detection rates in the community through targeted training and guidelines, mainly with positive results.³⁰ This suggests that glaucoma-focused training in the form of CET or revalidation would improve glaucoma detection. However, it must be reiterated that it is not obvious that this would be addressing a large area of risk; both Scotland and Wales have implemented additional glaucoma training and accreditation, but this has been in response to an increase in the scope of practice of optometrists, and not in relation to a perceived or identified shortfall in competency.
- 5.20 Furthermore, a number of stakeholders have reiterated that optometrists have the necessary skills and training to conduct more tests for glaucoma (termed 'referral refinement') and that they in the main do not need to undertake additional training or accreditation mentioned in the previous papers and other studies. Of course, there is always scope to refine skills, but it is the opinion of education advisers that this is would not be filling any large gaps in knowledge.

Relation to Core Competencies

- 5.21 There are a number of core competencies for optometrists that are relevant here. Under Subject 1 (Communication Skills) optometrists should be able to (sub-section 1.5) 'discuss with patients the importance of systemic disease and its ocular impact' and (sub-section 1.7) 'impart an explanation of their eye condition'. These competencies could relate to the shortcomings highlighted in the first article discussed, in which some optometrists failed to advise the patient of the various factors contributing to her increased risk of glaucoma.

²⁹ Ang et al (2009)

³⁰ See Azuara-Blanco et al (2007) for citations.



- 5.22 Referral practices are included under Subject 2.4 'the ability to make a judgement regarding referral and an understanding of referral pathways'.
- 5.23 The whole of Subject 5 (Ocular Examination) would be relevant here, as it includes the ability to assess various parts of the eye using various equipment, including those tests necessary for the diagnosis of glaucoma (such as tonometry, visual fields and optic disc assessment).
- 5.24 Subject 6 (Ocular Abnormalities) is also relevant, including the ability to evaluate glaucoma risk factors, to detect glaucoma and refer accordingly.

Retinal detachment

Clinical risk

- 5.25 Retinal detachment is a rare but sight-threatening event which occurs when the retina becomes separated from the underlying tissue.³¹ This may be caused by a hole or tear in the retina which allows fluid underneath, weakening the attachment of the retina. This can result in loss of sight or blindness.
- 5.26 Flashing lights, showers of dark spots called floaters, a visual field defect and loss of vision (often in the form of a shadow or curtain spreading across the vision of one eye) are the four most common presenting symptoms relating to a retinal break or retinal detachment.³² Key factors of retinal detachment can be elucidated by the optometrist taking careful patient history and symptoms (for example to identify any subjective field defects), and by looking for signs during the examination.
- 5.27 Although detached retina affects only about one person per 10,000 (i.e. prevalence rate of 0.01 per cent, 200 times less common than glaucoma), it is more common in middle-aged people and those who are very short-sighted. If a patient has a detached retina in one eye, the risk of developing one in the other eye is increased. Very rarely, younger people can have a weakness of the retina, or it can be detached as a result of a blow to the eye or head. Retinal detachment can also occur as a result of laser refractive surgery but this is a rare complication. Cataract surgery, ocular tumours and diabetic eye disease are other possible causes.³³
- 5.28 A detached retina requires urgent medical attention to reattach it or repair any tears. If this is done soon enough vision may be regained, but if left then vision loss will be permanent. Prompt diagnosis and referral by optometrists is therefore essential.

³¹ College of Optometrists (2009) 'Information for the Public: Detached Retina' http://www.college-optometrists.org/index.aspx/pcms/site.Public_Related_Links.Common_Eye_Diseases_and_Problems.Detached_Retina/

³² Tanner V, Harle D, Tan J, Foote B, Williamson T.H, and Chignell A.H (2000) 'Acute posterior vitreous detachments: the predictive value of vitreous pigment and symptomatology' *British Journal of Ophthalmology* Vol 84, p1264-1268



- 5.29 There are a number of issues regarding the diagnosis of retinal breaks and detachment. First, most retinal breaks do not lead to a detachment, with breaks associated with the sudden onset of symptoms far more likely to result in a detachment than asymptomatic breaks. Second, even the presence of the symptoms of flashing lights and floaters is not a sure sign of a dangerous retinal break or detachment. Many patients experience these and in the vast majority of cases these are benign and not symptomatic of a retinal tear. Third, retinal breaks or detachments can occur suddenly, without warning, even after a seemingly clear eye examination.³⁴
- 5.30 The difficulty with diagnosis and the serious consequences of detached retina mean that optometrists generally refer any suspicious cases to ophthalmologists.

Practitioner risk

- 5.31 Evidence gathered from stakeholders suggests that retinal detachment, although a serious condition, is not a large area of practitioner risk. Once a detachment has occurred it is highly unlikely that it will be missed, and thus any risk is confined to the optometrist missing signs of a tear or break and a potential detachment. Given the difficulty in diagnosing small tears or breaks, stakeholders were of the opinion that not much more in terms of training could be done to improve diagnosis.
- 5.32 An academic expert did refer to a study that highlighted an area of small risk. This clinical study into the content of eye examinations for a presbyopic patient with symptoms of flashing lights found mildly concerning results regarding the tests and history taking conducted by the optometrists. Only 35 per cent of optometrists asked four or more of the questions listed by experts as appropriate to identifying the nature of the patient's presenting symptoms of flashing lights. Improvement in communication skills in this case may be useful. Thirty-six per cent of optometrists in the study did not comply with College of Optometrists' guidance regarding the use of dilated funduscopy as a test for patients with flashing lights. The authors also found it concerning that three of the 102 optometrists did not check the IOP using any method on a patient of this age group.

Scope for additional training

- 5.33 The authors recommend that future continuing education and training could usefully focus on the need to determine the prime symptoms associated with retinal tears and detachments, in particular asking all relevant questions regarding patient history and symptoms. Attention could also be paid to examination techniques (including the knowledge of developments in symptom recognition, such as 'tobacco dust') and referral

³³ See Haimann 1982; Wilkes 1982; Rowe 1999; American Academy of Ophthalmology 2003; and Byer 1989, all cited in Wilkinson CP (2005) 'Interventions for asymptomatic retinal breaks and lattice degeneration for preventing retinal detachment' *Cochrane Database of Systematic Reviews*, Issue 1. Art. No: CD003170

³⁴ See Haimann 1982; Wilkes 1982; Rowe 1999; American Academy of Ophthalmology 2003; and Byer 1989, all cited in Wilkinson CP (2005) 'Interventions for asymptomatic retinal breaks and lattice degeneration for preventing retinal detachment' *Cochrane Database of Systematic Reviews*, Issue 1. Art. No: CD003170



guidelines for patients presenting with symptoms of post vitreous detachment.³⁵ This suggests some room for improvement, but on the whole it is difficult to assess the real risk of optometrists missing a retinal break or detachment due to the fact that in this case the patient did not have one, and other evidence on this risk was not found.

Relation to core competencies

- 5.34 The taking of patient symptoms and history is particularly important in identifying retinal tears or detachments. Subject 1 of the optometry core competencies (Communication Skills) is relevant here, in particular sub-sections 1.1 (the ability to take accurate history from patients with a range of optometric conditions) and 1.2 (the ability to elicit significant symptoms).
- 5.35 Subject 5 (Ocular examination) is also relevant here as it covers the ability to conduct and interpret the results of a range of tests that examine the health of the eye, in particular 5.7 (the ability to examine fundi using direct and indirect techniques).
- 5.36 Subject 6 is relevant in that it covers the ability to evaluate and manage a patient presenting with symptoms suggestive of retinal detachment (sub-section 6.13).

Spectacle non-tolerance

Clinical risk

- 5.37 Adverse reactions to optical prescriptions, known as 'non-tolerances', do not constitute a serious risk to adults but they are not uncommon and can have unwanted consequences (headaches, blurred vision, etc and the hassle of returning to the optometrist for adjustments). Non-tolerance to spectacles can be divided into two categories:
 - (a) dispensing non-tolerance, where problems are found with the appliance given, the lenses in the appliance, or the dispensing measurement taken. The main causes are incorrect frame fitting, optical centration problems, spectacle magnification problems, cosmetic reasons and miscommunication.
 - (b) prescription non-tolerance, resulting from a prescription that the patient finds hard to tolerate.
- 5.38 There have been relatively few studies on the causes and effects of spectacle non-tolerances, and there is little information concerning the average rate of return of spectacles. The available evidence on the proportion of patients that returns to the optometrist or optician with a spectacle non-tolerance ranges from 1.6 per cent to 2.8 per cent.

³⁵ The over-arching condition including retinal detachment



5.39 There is some debate surrounding the effects of non-tolerances. Some studies show that even small focal errors can have an impact on critical tasks and for critical patients.³⁶ Others suggest that patients can tolerate magnitudes of errors greater than those typically found in adverse reactions to optical prescriptions,³⁷ and others that patients are not sensitive to small prescriptions changes.³⁸ One study found an increased rate of falls in older people who had their refractive error changed versus a control group. Many of the refractive error changes were over 0.75D which led the authors to suggest that large prescription changes may increase the risk of falling. Another study therefore suggested prescribing large refractive error changes in stages (over two sets of glasses) to ensure adaptation is as easy as possible.³⁹ Expert opinion suggests that the impact of the majority of non-tolerances is not significant or serious.

5.40 The main causes of non-tolerance to optical prescriptions are:

- (a) practitioner orientated, including dispensing errors; faulty refraction and prescription; undetected or subsequently developed abnormality; and management of initial examination.
- (b) patient orientated, including adaptation problems; psychology; and motivation, expectation and dissatisfaction.
- (c) practitioner/patient relationship, including attitudes and personality patterns.

Practitioner risk

5.41 A recent study into the causes of spectacle non-tolerances, in which 62 out of 3,091 eye examinations conducted at a large community optometric practice were non-tolerance examinations (2 per cent), classified the main reasons for the non-tolerances in to five main categories.⁴⁰ These were:

- (a) Dispensing related (22 per cent of the non-tolerance examinations)
- (b) Prescription related errors (61 per cent, of which 17 per cent were adaptation problems, where the prescription was felt to be correct but the patient could not adapt to it)
- (c) Pathology (8.5 per cent)
- (d) Data entry error (6.8 per cent)

³⁶ Miller A.D, Kris M.J and Griffiths A.C (1997) 'Effect of small focal errors on vision' *Optometry and Vision Science* Vol 74, p521-526
³⁷ See Duke-Elder and Abrams 1970; Comas *et al.* 2007; Lovasik and Szymkiw 1985; Atchison *et al.* 2001 cited in Freeman and Evans (2009) *Ophthalmic and Physiological Optics* Vol 29, p1-11
³⁸ Appleton C.B (1971) 'Ophthalmic prescription in half-diopter intervals' *Archives of Ophthalmology* Vol 86, p263-267
³⁹ See Cummings *et al* 2007; and Harley *et al* 2007 cited in Freeman and Evans (2009) *Ophthalmic and Physiological Optics* Vol 29, p1-11
⁴⁰ These non-tolerance examinations were only undertaken if the spectacle problem could not first be solved by a dispensing optician



(e) Binocular vision problems (1.7 per cent)

- 5.42 It is interesting that the second most prevalent cause of non-tolerance was dispensing errors. Whilst some of the dispensing issues applied to optometrists, it is clear that dispensing opticians also have a role in spectacle non-tolerances. It must be noted that these 62 examinations concerned non-tolerances that could not first be addressed by the dispensing optician. It may be that in addition to trivial fitting problems more serious errors (such as an inappropriate lens type) were dealt with by the optician, and therefore the results of the study are likely to underestimate the true prevalence of dispensing errors and data entry errors.
- 5.43 The study found that most of the non-tolerances could be resolved by small changes, within 0.50D, to the prescription. This finding, and the low prevalence of non-tolerance, makes it a low risk area of adverse events. There is furthermore little evidence pointing to practitioner incompetence as a causal agent. According to an academic expert (and one of the co-authors of the most recent study of the subject) non-tolerance is largely due to the patient's adjustment to the glasses and, as such, is rather more an 'unavoidable event' than anything that could be addressed by changing optometrists' behaviour. Even when the underlying cause of the non-tolerance is classified as a 'prescription error' and is by definition 'practitioner orientated', it is seldom the case that the optometrist made a mistake; in many cases a seemingly appropriate prescription (given the results of the initial eye examination) just did not work and some adjustments to the prescription were necessary to improve the tolerance.
- 5.44 That said, experience does tend to lead to a better 'fit' being prescribed. Very often the optometrist will combine the results of the tests (the "facts") with more qualitative factors (the patient's life style, how fussy they are, how long they have been wearing glasses etc). This is often a question of judgement as well as good communication skills, and a less experienced optometrist who goes solely on the facts may have more non-tolerances.⁴¹
- 5.45 It has been raised by some in the optical community that a significant amount of dispensing is undertaken by unqualified people (for example, unregistered opticians⁴² and optical assistants), which may affect the incidence of spectacle non-tolerances. However, this issue is beyond the scope of this current research as only risks concerning registered practitioners can be addressed through revalidation. However, it may be an area for future research to establish the actual scale of the problem and the associated risks.

Scope for additional training

- 5.46 There is very little evidence of a shortage of skill, or scope for additional training, related to this adverse event. It has however been suggested that even though spectacle non-

⁴¹ View expressed by academic expert, practicing optometrists and professional organisations.

⁴² Although a practitioner is only able to be called an 'optician' if he or she is registered with the GOC



tolerances are a small form of adverse reaction, they are still important and it is reasonable to audit their prevalence and examine any outliers. Information on trends may highlight, for example, a particular optometrist or dispensing optician who frequently receives non-tolerance re-visits, and subsequent investigations can be made. Good practice in terms of auditing, and possibly even financial assistance, could form a useful part of CET.

- 5.47 As with many other areas of optical practice, a degree of 'self-insurance' exists with spectacle non-tolerance. It is within the interests of employers, both large and small,⁴³ to monitor the level of non-tolerances, mainly for commercial reasons (every time spectacles have to be re-fitted or altered this represents an unrecovered cost to the business), and address situations where a particular optometrist or optician may consistently have to have spectacle re-made. This 'built-in' check may go some way to mitigating the need for the audit described above.

Relation to core competencies

- 5.48 Although refraction errors are unlikely to be a cause of spectacle non-tolerances, they nevertheless correspond to existing core competencies. For optometry Subject 3 (Visual Function) is relevant, in particular sub-sections 3.1 (ability to refract a range of patients with common optometric problems by appropriate objective and subjective means) and 3.2 (the ability to make appropriate prescribing and management decisions based on the refractive status).
- 5.49 Communication Skills (Subject 1) are again important as this enables the optometrist to combine more qualitative information about a patient to improve the fit of their spectacles.
- 5.50 The whole of Subject 4 (Optical Appliances) is relevant as it covers the ability to advise on and dispense the most suitable form of optical correction, taking into account durability, comfort, cosmetic appearance and lifestyle. Of particular relevance to this area is sub-section 4.9: the ability to manage non-tolerance cases.
- 5.51 Core competencies for dispensing opticians are also relevant here. These include Communication Skills (Subject 1); Refractive Management (Subject 2) and most importantly Optical Appliances (Subject 3).

Diabetic eye conditions

Clinical risk

- 5.52 Eye problems are among the most significant complications of diabetes, which is the most common cause of blindness in people of working age. The most damaging condition is

⁴³ Although arguably non-tolerance revisits would represent a larger proportion of a small practice's overall revenue than a large practice, particularly one that is able to cross-subsidise on a wider range of products.



diabetic retinopathy, where the fine network of blood vessels in the retina leak fluid. Currently at least two per cent of the UK population is known to have diabetes, of whom 10-13 per cent have sight-threatening diabetic retinopathy.⁴⁴ The risk increases with age: twenty years after diagnosis virtually all Type I diabetics and approximately 60 per cent of Type II diabetics will have retinopathy detectable on examination, although not all of these will have symptoms. After 30 years, 30 per cent of Type I and three per cent of Type II will have developed proliferative disease.⁴⁵

- 5.53 Cataracts also develop earlier and progress more rapidly in diabetics than in other people, and retinal vascular occlusions⁴⁶ and extraocular muscle palsy⁴⁷ are also common in diabetics.⁴⁸
- 5.54 Serious eye problems are less likely if the diabetes is well controlled or in its early stages, and most sight loss from diabetic eye disease can be prevented if detected early and treated. This requires vigilant monitoring and treatment of the eyes. As an example, research indicates that a large majority of new cases of diabetic retinopathy in Australia could be reduced if there was proper treatment and monitoring.⁴⁹ This, however, refers more to the need for comprehensive diabetes screening and patients' responsibility to attend eye tests, rather than to poor detection or management on the part of optometrists.
- 5.55 Optometrists have an important role to play in monitoring the eyes of diabetics once diagnosed. Some conditions do not present with symptoms until relatively advanced (such as retinopathy) and, given the fact that rapid treatment (surgery) is key to preserving sight, it is important that diabetics' eyes are closely monitored. Retinopathy is frequently detected during routine screening of a known diabetic.⁵⁰

Practitioner risk

- 5.56 There is little evidence of misdiagnosis or mismanagement of diabetic eye conditions and, although the risks associated with the diseases and conditions are high, practitioner risk appears to be low. The fact that diabetics receive free eye tests and that optometrists are in most cases aware of their patient having the disease further reduces the likelihood of misdiagnosis. Screening diabetics for retinopathy is recommended, as the disease is frequently detected this way, although the provision of such services varies greatly across the UK.⁵¹ ⁵²

⁴⁴ Royal College of Ophthalmologists guidelines

<http://www.mrcophth.com/focus1/Screening%20for%20Diabetic%20Retinopathy.htm>, accessed October 2009

⁴⁵ Batterbury, M and Bowling, B (2002) 'Ophthalmology: An illustrated colour text' Churchill and Livingstone, London

⁴⁶ Blockage in the blood vessels of the retina

⁴⁷ Paralysis of the extraocular muscles that control the movements of the eye.

⁴⁸ Batterbury, M and Bowling, B (2002) 'Ophthalmology: An illustrated colour text' Churchill and Livingstone, London

⁴⁹ Tapp R. *et al* (2003) 'The prevalence of and factors associated with diabetic retinopathy in the Australian population' *Diabetes Care* 26(6), p 1371

⁵⁰ Batterbury, M and Bowling, B (2002) 'Ophthalmology: An illustrated colour text' Churchill and Livingstone, London

⁵¹ Royal College of Ophthalmologists guidelines



- 5.57 The practitioner's scope of practice regarding diabetic eye conditions will also impact on the level of risk they undertake. If an optometrist is involved in the management of the condition in any way (as opposed to a GP or ophthalmologist) then they would have to be more experienced in this area and to know more about treatments and management techniques, as opposed to just diagnosis of the condition.
- 5.58 The actual diagnosis of diabetes is not such an important task for optometrists nowadays, as GPs and nurses are fully equipped to diagnose the disease and a patient is generally more likely to see a GP/nurse than an optometrist. Therefore the effect of a missed diagnosis of diabetes by an optometrist is likely to be very small.

Scope for additional training

- 5.59 No studies have been found that suggest the need for additional training, or more focused CET, to address the diagnosis and management of diabetic eye conditions. Similarly, academic and other optometric experts have not identified this as an important area, highlighting that fact that optometrists who deal with diabetic eye conditions in most cases ensure that they are up to date in this area. That said, given the high clinical risk associated with diabetic eye conditions it seems appropriate to address this area in some way through revalidation.

Relation to existing competencies

- 5.60 The ability of the optometrist to elicit patient history to identify diabetic patients is important, and thus Communication Skills are relevant. Also relevant are the Subjects 5 (Ocular Examination) and 6 (Ocular Abnormalities), in particular sub-section 6.12 (the ability to recognise, evaluate and manage diabetic eye disease and refer accordingly).
- 5.61 An optometrist involved in the management of diabetic eye conditions (as part of a supplementary or independent prescribing speciality) would be required to demonstrate all related core competencies, such as the knowledge of the course of the condition being treated, the ability to review the nature and severity of the presenting condition, and the ability to monitor the response to treatment and modify the clinical management plan if necessary.
- 5.62 Dispensing Opticians also have a responsibility to recognise ocular abnormalities, and related core competencies are 8.1 (the ability to recognise conditions and symptoms requiring referral or emergency referral) and 8.5 (an understanding of the clinical treatment of a range of systemic diseases with ocular manifestations).

⁵² <http://www.mrcophth.com/focus1/Screening%20for%20Diabetic%20Retinopathy.htm>, accessed October 2009
Batterbury, M and Bowling, B (2002) 'Ophthalmology: An illustrated colour text' Churchill and Livingstone, London



Macular degeneration

- 5.63 Age-related macular degeneration (AMD) is the leading cause of vision loss for people over the age of 50 in the Western world. In the UK, 220,000 people who are registered blind or partially sighted have AMD. The Royal Institute of the Blind estimates that the total number of people with AMD is closer to 400,000, with 40 per cent of these being over 75.
- 5.64 AMD occurs when the delicate cells of the macula — the small, central part of the retina responsible for the centre of our field of vision — become damaged and stop working. Macular degeneration erodes central vision and can make it difficult or impossible to read or recognize faces, although enough peripheral vision remains to allow other activities of daily life.
- 5.65 There are two types of AMD: the 'dry' form and the more severe 'wet' form. Dry AMD is the more common, develops gradually over time and usually causes only mild loss of vision. The wet form accounts for only 10-15 per cent of all AMD but the risk of sight loss is much greater. Up to 90 per cent of the cases of severe visual loss in elderly people is accounted for by wet AMD, and annual incidence is estimated at between 25,000 and 30,000 cases.⁵³
- 5.66 There is currently no treatment for dry AMD but the wet form can be treated in several ways. Various forms of laser treatment may be used to halt or slow the progression of abnormal blood vessels and prevent further sight loss. This area is one of high risk due to the rapid onset of wet AMD and the high risk of loss of sight. Any treatment requires early detection and rapid treatment, and the consequences of missing the signs of the disease are serious.

Practitioner risk

- 5.67 The main risk facing practitioners is failing to make timely diagnosis of wet AMD. As treatment is available, and should be given as early as possible, misdiagnosis can have serious consequences. Diagnosis can be complicated by the difficulty in separating out more than one age-related condition, such as the relative shares of cataract and AMD in a patient's vision loss. In addition, 'dry' AMD can occur at the same time as 'wet', or even change into wet, further complicating diagnosis. It is therefore important that optometrists know how to recognise the signs of wet AMD.

Scope for additional training

- 5.68 Despite these risks there is no available evidence of a lack of skill or training among optometrists in diagnosing and referring wet AMD. As it has been highlighted as a serious

⁵³ See Chodpar A, Chakravarthy U and Verma D 'Clinical review: age-related macular degeneration' *BMJ* Vol 326, p485-8 and National Institute for Health and Clinical Excellence (2003) 'Macular degeneration (age-related) – photodynamic therapy', London.



condition, however, it may be appropriate to encourage focused CET in this area. As the condition is age-related it will have a certain patient profile and therefore more attention should be paid to this condition by practitioners with an older patient group.

Relation to core competencies

- 5.69 Optometry core competencies relevant to AMD include Ocular Abnormalities (Subject 6), in particular sub-section 6.11, the ability to manage a patient presenting with macular degeneration.
- 5.70 In the case of dry AMD, as no treatment is available, intervention will only be supportive. Optometrists should be able to communicate effectively with the patient regarding the effects of the condition, and relevant competencies include 1.5 (the ability to impart to patients an explanation of their eye condition) and 1.6 (the ability to understand a patient's fears and concerns about their visual welfare). In addition, the optometrist should be competent in the dispensing or appropriate optical appliances that may assist someone with AMD (Subject 4).

Contact lenses

Clinical risk

- 5.71 There are a number of risks to patients wearing contact lenses. These include corneal ulcers and keratitis. Acanthamoeba keratitis, possibly the most serious condition, is a rare but very painful and potentially blinding infection of the cornea. The infection rate is approximately one in 30,000 contact lens wearers, and in around 85 per cent of cases the condition is associated with contact lens use.
- 5.72 The organism that causes the infection has been found in most environments including domestic tap water, chlorinated swimming pools, hot tubs and bottled water. It is also present in the nasal passages of healthy people. Hygiene is therefore of utmost importance in preventing infection, and most cases of Acanthamoeba keratitis are preventable if contact lens wearers follow the instructions given to them by their contact lens practitioner.
- 5.73 Most research studies reporting keratitis in contact lens wearers link it directly with poor patient hygiene, usually as a result of poor compliance with the practitioner's instructions for lens care. Risk factors for infection in contact lens wearers are:
- (a) Use of tap water during lens care (to rinse lenses or the storage cases)
 - (b) Wearing lenses while swimming (without goggles), showering or in hot tubs
 - (c) Use of ineffective lens care solutions
 - (d) Failure to follow lens care instructions



- 5.74 Switching solutions without the advice of the contact lens practitioner is also not recommended.
- 5.75 Another area of possible risk is ortho-keratology, the use of specially designed rigid gas-permeable (RGP) contact lenses to alter the shape of the cornea in order to reduce or correct myopia (short-sight). Several reports have been published in the literature of patients — often children — contracting sight threatening eye infections after wearing orthokeratology lenses. Many of these reports are from the Asian region and a significant number are of Acanthamoeba infection, discussed above.
- 5.76 The College of Optometrists state that it is not possible to evaluate the relative risk of contracting an eye infection from Ortho-K lenses compared with other contact lens wearing modalities (due to the unknown number of Ortho-K wearers) and maintain that simply because these cases have been reported does not necessarily mean that Ortho-K lens wear increases the risk of eye infection more than other overnight wear contact lenses. In general it is accepted that the risk of overnight wear of rigid gas permeable (RGP) contact lenses is significantly less than any other lens materials. A study is currently underway to compare the rate of microbial infections in an animal model wearing corneal reshaping (Ortho-K) lenses compared with conventionally fitted RGP contact lenses. The emphasis on any advice to Ortho-K patients should be on vigilance and diligence — strict compliance with lens cleaning and accessory use.⁵⁴
- 5.77 It is well established that overnight wear significantly increases the risk of corneal infection among soft contact lens wearers.^{55 56}
- 5.78 The importance of hygiene in lens wear is highlighted in a study conducted in 1998 at Moorfields Eye Hospital, which found a substantially increased risk with 1-4 week disposable soft contact lenses (SCL) compared with non-disposable SCL among both daily wear and extended wear users. Their conclusions were that a number of factors other than the lens type were likely to be responsible for the excess risk. These include both patient and practitioner factors, such as:
- (a) the use of disposable lenses as a panacea for poor hygiene compliance (thus resulting in a sample selection bias);
 - (b) the intense marketing and commercial advantages of some disposables may have persuaded practitioners to fit patients for whom the available disposable parameters were less than ideal, perhaps resulting in a lower standards of fit; and

⁵⁴ College of Optometrists and British Contact Lens Association 'Orthokeratology advice' <http://www.college-optometrists.org/coo/download.cfm?uuid=BDF27641-1594-8953-AB7711612D07C7F4>

⁵⁵ See Dart JKG, Stapleton F, Minassian D (1991) 'Contact lenses and other risk factors in microbial keratitis' *Lancet* Vol 338

⁵⁶ Schein OD, Glynn RJ, Poggio EC, et al. (1989) 'The relative risk of ulcerative keratitis among users of daily-wear and extended-wear soft contact lenses' *New England Journal of Medicine* Vol 321



(c) the emphasised convenience and promotion of increased safety may have tempted some patients to wear disposable lenses under adverse conditions.

5.79 The above factors relate strongly to current advice on the importance of patients' responsibility for hygiene and following aftercare advice. If hygiene routines are followed then disposable lenses should in fact be more hygienic than non-disposables (which never remain at their original sterility and deposit-free status).

5.80 The other two risk factors mentioned are considered now to be out of date: nearly all prescriptions are now available in disposable form, eliminating the issue of parameter availability and the fitting of inappropriate lenses. Furthermore, lens care products (solutions) have also been enhanced in this period.

Practitioner risk

5.81 The scope for practitioner risk among both optometrists and dispensing opticians appears to be very small. In terms of complaints and insurance claims (which are very low) the main issues appear to be with patient adherence to hygiene standards, as opposed to any issue with the nature or fitting of the contact lenses. This reiterates the importance of good communication skills and thorough record keeping, as often risks arise when advice about contact lens care is not followed properly, and the practitioner needs to be able to prove that such advice was in fact given.

5.82 Advice circulated by the Association of Optometrists (AOP) on the supply and fitting of contact lenses includes the following:

As Beverley Lang QC indicates, 'it is advisable for optometrists to provide instructions and information in writing', partly because The College of Optometrists so advises (see its Members Handbook paragraph 28.03) and its guidance 'is likely to be relied upon in any negligence or disciplinary proceedings as an indicator of good practice.'⁵⁷

5.83 The College of Optometrists publishes information regarding the risks in wearing contact lenses and patients' responsibility in their own care.

5.84 FODO also highlighted the importance of hygiene, and confirmed that the majority of problems arise from non-compliance with hygiene rules. Record keeping in this case is doubly important.

5.85 Contact lenses are fitted fully before a complete prescription, with lens specifications, is given and therefore any difficulties experienced by the patient in terms of lens modality or fit are most likely to be identified and rectified quickly.

⁵⁷ Association of Optometrists 'Advice on sale and supply of contact lenses'
http://www.aop.org.uk/uploaded_files/contact_lenses_guidance_on_sale_or_supply.pdf



Scope for additional training

- 5.86 Given the small level of practitioner risk there does not appear to be much scope for additional training or revalidation. As with all areas of some risk maintaining knowledge is important, and thus a requirement to undertake CET focused on contact lens supply could be useful. It will however be important to determine the scope of practice of optometrists — for example an optometrist working in nursing homes is unlikely to fit contact lenses, and therefore should not be expected to develop additional skills in this area over and above the basic competencies.
- 5.87 Dispensing opticians with a contact lens speciality are already required to undertake an additional six CET points related to contact lenses. As contact lens fitting falls under optometrists' general competencies this is not applicable to them, and there may be some risk that an optometrist, not experienced in fitting contact lenses nor required to undertake particular CET, will not provide the best level of service when called upon to do so. This small risk has to be weighed, however, against the lack of evidence of complaints or claims relating to competence, and against the fact that optometrists not experienced in a particular area will in most cases not accept patients but refer them to relevant colleagues.

Relation to core competencies

- 5.88 There are a number of core competencies related to the supply and fitting of contact lenses. For optometrists these are under Subject 7 (Contact Lenses), which covers the ability to fit soft and rigid lenses, manage the aftercare and advise on appropriate hygiene methods.
- 5.89 Dispensing Opticians are required to have a contact lens speciality, and this covers similar core competencies as for optometrists.

Children

Clinical risk

- 5.90 The management of child vision, both by optometrists and dispensing opticians, can be more risky than adult vision as errors in prescriptions or the dispensing of spectacles and lenses can have long-lasting effects on children and affect other areas such as the absorption of information and learning development.
- 5.91 There is conflicting opinion, however, regarding the scope for damage from prescription errors, with some experienced optometrists stating that, although the risk is greater in children than adults, it is still small.
- 5.92 Developmental and social issues do add a degree of complexity to child management. Children often do not want to wear glasses, and good communication on the part of the optometrist, both with the child and parents, is important.



- 5.93 In addition, detecting problems in children can also be difficult if their age prevents them from adequately participating in tests. Furthermore, parents sometimes do not listen to the child when they complain of a problem (think they are just acting up) and fail to bring them to see the optometrist, which can delay appropriate intervention. Some parents are also negligent.
- 5.94 ABDO is of the opinion that dispensing problems with children (such as the fit of the glasses or the lens used) usually occur in non-registered (illegal) opticians who perhaps do not have the skills or range of equipment/products suitable for children.

Practitioner risk

- 5.95 There is little evidence of clinical incompetence on the part of registered optometrists or dispensing opticians in the handling of children. None of the GOC's Fitness to Practise hearings that resulted a sanction (or any, for that matter) concerned children, and available information on insurance claims from professional bodies does not highlight child management as an area of risk. Failure to detect or appropriately treat squints or binocular vision has also not been highlighted as common.
- 5.96 As with a number of areas in optical practice, optometrists will generally not take on a child management case unless this is an area with which they are comfortable. It is important to note that in the majority of cases optometrists do not 'dabble' in specialities, and are happy to refer cases that are not within their chosen area of expertise. Optometrists managing children are therefore likely to have a higher degree of experience and additional competencies than other optometrists.
- 5.97 However, concern was raised by some stakeholders that opticians and optometrists do see children even though this may not be an area in which they feel comfortable, and that standards in general regarding child care need to be raised.
- 5.98 Some kind of revalidation may be useful for practitioners who do not usually manage child patients, but who work in areas (such as isolated practice) which may make it difficult to refer the patient on to a more experienced optometrist. This relates to the suggestions made under isolated practice as a contextual factor.

Scope for additional training

- 5.99 Evidence from stakeholders did not suggest the need for any additional training or revalidation in the management of children. This is largely based on the relatively low practitioner risk, and the fact that optometrists not experienced in child care are likely to refer to a relevant colleague.
- 5.100 Up to date information and guidance about paediatric optics is provided by ABDO to its members (dispensing opticians), who make up approximately 90 per cent of registered opticians.



5.101 It may be useful to have some CET events dedicated to child optics and encourage (or require) optometrists and opticians to attend in order to maintain current competencies.

Relation to core competencies

5.102 There are core competencies for both optometrists and dispensing opticians relating to child optics. In particular, for optometry, Subject 3 (Visual Function) includes the ability to assess children's visual function using appropriate techniques (sub-section 3.4) and Subject 8 (binocular vision) includes the ability to manage children presenting with and at risk of developing binocular vision (sub-sections 8.5 and 8.6).

5.103 Dispensing opticians are required, under Refractive Management, to understand the methods of refracting children and an understanding of prescribing and management decisions (sub-section 3.3). Under Optical Appliances they are required to have the ability to relate the development of a child's facial anatomy to the fitting of optical appliances (sub-section 4.4)

Independent Prescribing

5.104 In addition to investigating the risks in current optical practice, this research also considers new areas that may pose a risk in the future, such as the Independent Prescribing speciality.

5.105 There are a number of legal mechanisms by which an optometrist can prescribe, supply or administer medicines to patients:

- (a) Independent Prescribing (since 2008)
- (b) Supplementary Prescribing (since 2005)
- (c) Medicines Act Exemptions (since 2005)
 - Additional Supply
 - Entry level exemptions

5.106 Independent Prescribing, Supplementary Prescribing and Additional Supply Medicines Act exemptions (also described as 'Therapeutics' specialities) all require specialist training and registration with the GOC before an optometrist can practise in these areas. The entry level Medicines Act exemptions can be practised by all registered optometrists.⁵⁸

5.107 In order to qualify to prescribe medicines independently optometrists must undertake an additional diploma qualification, a clinical placement with an eye hospital service or a



specialist general practice under the supervision of an ophthalmologist (24 sessions of no less than three hours) and a final assessment exam.

- 5.108 This year sees the first set of optometrists qualified in the 'Independent Prescribing' speciality, and no evidence currently exists as to whether this area presents any risks in terms of practitioner competence. Members of the optical community were therefore approached for their opinions on the scale of risk in prescribing, and whether this area of practice might be comparable to other professions to enable us to some extent extract some insights regarding risks.

Practitioner risks

- 5.109 Whilst some concerns were raised, the prescribing of medicines was not seen as an area of great risk by a number of members of professional and educational bodies. There is no evidence of problems within the existing prescribing areas (Supplementary Prescribing and Additional Supply), and it was not felt that Independent Prescribing would be very different. The number of optometrists undertaking this speciality is, and is likely to remain, very small.⁵⁹
- 5.110 The potential risks highlighted in discussions include the implications of optometrists not understanding the limits of their own competence, particularly as they will have access to a large range of medicines. Prescribing also involves a physical intervention which could have more direct risks (as opposed to the more indirect risks of non-specialist optometrists failing to do something or missing a diagnosis).
- 5.111 On the other hand, optometrists with prescribing specialities are most likely to work in hospitals and clinics, as opposed to in the community, and therefore likely to be under some degree of supervision by a medical practitioner.

Scope for revalidation

- 5.112 Prescribing does pose potential risks to patient health and safety. Optometrists are however required to undertake additional training and it may well be the case that this is sufficient to cover the additional risk. Revalidation may be desirable after some time to ensure that initial competencies are retained. Regarding practitioner risk (i.e. areas of incompetence) the risk does not seem to be high, but this area of practice should be monitored.
- 5.113 A further consideration is that if separate CET for Independent Prescribing is required (new CET and CPD courses for independent prescribing are being developed by City

⁵⁸ College of Optometrists '(Therapeutics/Prescribing)' <http://www.college-optometrists.org/index.aspx/pcms/site.education.Therapeutics.intro/>

⁵⁹ With approximately 200 optometrists choosing to train for this speciality in 2008.



University,⁶⁰ and the College of Optometrists has a Peer Review Group Programme available to optometrists on the therapeutics register) then this may obviate the need for any further revalidation.

Relation to core competencies

5.114 Should revalidation be desirable, there are a number of relevant core competencies against which practitioners could be revalidated. These are all embodied in the Supplementary and Additional Supply competencies required for entry onto these specialist registers with the GOC.⁶¹

General issues

Decision-making

5.115 A number of stakeholders highlighted the fact that “decision-making” was an area which optometrists could improve. This includes the whole process of seeing a patient, determining appropriate tests to conduct, identifying any conditions, deciding on the next steps (more tests, referral etc), and deciding on the most appropriate treatment and who to administer it.

5.116 The development of decision-making skills requires practice, and it was felt that this is an area that would benefit from further training, and possibly attention through revalidation. Optometrists may not have the opportunity to practise such decision-making in their community practices if they are not regularly exposed to different eye conditions or patient needs.

5.117 A number of suggestions were made as how to improve decision-making. These could be incorporated into CET or CPD, or form part of a revalidation process.

(a) Clinical exposure to a larger volume of conditions and diseases (such as in a hospital environment) and the appropriate treatment processes.

(b) Peer review or shared learning, whereby cases or referral decisions are discussed and suggestions/advice given. Peer review was thought to be particularly beneficial for higher-risk types of practice such as disengaged practitioners.

(c) Review sessions involving ophthalmologists was seen as beneficial, particularly regarding referrals, as this would add another perspective in the decision-making chain. If practitioners can hear about the consequences of their decisions from ‘the other side’ then this will help to refine the process.

⁶⁰ http://www.college-optometrists.org/index.aspx/pcms/site.education.Therapeutics.cet_cpd/

⁶¹ General Optical Council (2009) ‘Standards in Therapeutics’
http://www.optical.org/goc/filemanager/root/site_assets/core_competencies/competencies_therapeutics.pdf



- (d) Training events with feedback sessions. For example, the opportunity for practitioners to see a number of cases at one time, record their findings and then receive general feedback on performance and areas for improvement.
- (e) Care pathways were seen as an integral part of decision-making — ensuring that practitioners know what to do in certain cases.⁶² Knowledge of recommended pathways could be promoted more efficiently, and could even form part of a compulsory CET or revalidation event (such as a 'test' on pathways for certain conditions).
- (f) There was much support for the idea of introducing electronic picture-based exams (similar to those used in Independent Prescribing training). These exams could take the practitioner through the various steps required in the decision-making process for a particular disease, from identifying the condition from pictures to the final action of treatment or referral. This would have a number of advantages as it would be directly relevant to decision-making and would also improve knowledge regarding important conditions. It could also enable the practitioner to receive a score or grading (possibly including a benchmark against the rest of the profession) and thus highlight areas for further improvement. Authenticated results of such 'tests' could be accredited for revalidation or CET/CPD.

Record keeping

- 5.118 The poor maintenance of clinical records has been highlighted by a number of stakeholders and studies as a problem area within optometry practice. Poor record keeping could include misreporting on advice given or tests undertaken during examinations (both over- and under-reporting), and more general illegibility and lack of clarity.
- 5.119 Whilst not a clinical risk in itself, poorly kept records make any audit of clinical quality difficult, and can present problems for the practitioner in the event of a legal case taken against them. They form a large source of complaint from PCT advisors, who regularly inspect practices and their records. Good record keeping is related to other conditions such as problems with contact lenses, which are generally linked to poor patient compliance with practitioner advice. Keeping records that this advice was in fact given is therefore important.
- 5.120 A number of studies have shown that clinical records are an imperfect representation of the content of a clinical consultation.⁶³ Recent research using the standardised patient

⁶² The care pathways published by Optometry Scotland are a good example. There are currently seven pathways covering a range of diseases and conditions, both for adults and children: http://www.optometriscotland.org.uk/guidance/eyecare_pathways.html
Optometry Wales also publishes protocols and guidelines relating to decision-making for a number of conditions <http://www.wales.nhs.uk/sites3/news.cfm?orgid=562&contentid=9554>

⁶³ Cited in Shah R, Edgar D.F and Evans B.J.W (2009) 'How well does record abstraction quantify the content of optometric eye examinations?' *Ophthalmic and Physiological Optics* Vol 29, p383-396



methodology to compare the clinical records describing the content of optometric examinations with the actual content as revealed by the standardised patients confirmed these other findings.⁶⁴ Optometrists were more likely to under-report (give patients more advice than they recorded) although between 5 and 15 per cent of practitioners recorded patient management and advice that was not reported by the standardised patient. The over-recording of tests conducted was much lower, with between two and six per cent of optometrists recording that they had performed tests which they had not.

- 5.121 The authors of the research discussed above indicate that accurate record keeping should be a priority for optometric CET, and that future CET on record keeping could usefully focus on the importance of recording key eye tests performed.
- 5.122 Professional bodies and PCT advisors also highlighted the issue of record keeping, reiterating that it is more an issue of good practice than competency, and has implications more for the optometrists than patients. They were doubtful whether it should be an area of mandatory CET, particularly as the professional bodies provide a great deal of information and guidance in this area already. This is particularly important for insurance claims (as defending a practitioner relies in part on their records kept), and professional bodies therefore have an incentive to improve this practice.
- 5.123 It was highlighted by the College of Optometrists and the AOP that auditing other practitioner's records is a very useful activity, and helps to share good practice and learn from areas of deficiency.

Communication

- 5.124 Like record keeping, communication is a more general aspect of optical practice that spans all areas of practice, with implications for both practitioners and patients. Throughout the discussion of clinical risks, the issue of communication has been often been raised as a contributing factor to risk management. This is particularly relevant regarding contact lenses (e.g. hygiene advice), child care (interacting with the child and parents), spectacle non-tolerances (eliciting accurate qualitative information about lifestyle etc) and retinal detachments (taking comprehensive patient history), and also features in contextual factors such as locum employment (particularly between locum and employer) and domiciliary care.
- 5.125 Communication skills do form part of the core competencies for optometrists and dispensing opticians, and it is recommended that some attention be paid to communication in revalidation, possibly as part of a set of general competencies.

⁶⁴ Shah R, Edgar D.F and Evans B.J.W (2009) 'How well does record abstraction quantify the content of optometric eye examinations?' *Ophthalmic and Physiological Optics* Vol 29, p383-396



Clinical Governance

- 5.126 The GOC currently envisage that revalidation should address clinical competence and thus being centred on the core competencies. However, a number of comments were raised during the revalidation stakeholder events regarding the existence of risks in optometry — related to factors other than practitioner competence — that pose a threat to patient health and safety. These relate mainly to clinical governance and are discussed here briefly for completeness.⁶⁵ However, the scope for addressing these issues via revalidation is, in our opinion, limited.
- 5.127 Clinical governance is the term used to describe a systematic approach to maintaining and improving the quality of patient care within a health system or practice.⁶⁶ Aspects of an optometric practice that fall outside the scope of practitioners' clinical competence are still important for achieving these aims.
- 5.128 One area highlighted as potentially risky is the practice of delegating functions (usually automated tests) to optometric assistants. Often this is done to save time and reduce the overall costs of the eye examination (often cited as necessary given the tight GOS fee structure, particularly in England). Optometric assistants' qualifications and training varies widely as they are often trained in-house and do not usually begin with a relevant qualification. The optometrist has full responsibility to supervise such assistants and ensure they are competent in what they are required to do. However, supervision can at times be insufficient, particularly in a busy practice, leading to errors in tests and thus wrong conclusions being drawn regarding patient eye health. It has been recommended that optometrists are kept up to date regarding their responsibilities in supervising delegated functions, possibly even being required to prove they are 'competent' in this regard as part of revalidation.⁶⁷
- 5.129 As part of ensuring that patient care is continually improving, optometrists have a responsibility to report and audit clinical problems (such as misdiagnosed conditions, mistakes and 'near misses'). However, it has been suggested that many optometrists do not do this, either through lack of interest or for fear of repercussions.
- 5.130 The regulation of clinical governance is a complex issue as very often it is not optometrists who own and run businesses, but opticians and even lay people. Therefore combining clinical governance with competence revalidation (and the intended recipients, which do not currently include bodies corporate) may result in some groups of employers not being addressed and the governance problems continuing.

⁶⁵ Issues such as unregistered dispensing opticians and the practice of selling contact lenses online were also raised, and have been discussed previously in the report and in the Appendix respectively.

⁶⁶ Scally and Donaldson (1998) 'Looking forward: Clinical governance and the drive for quality improvement in the new NHS in England' *BMJ* Vol 317, pp 61

⁶⁷ See Appendix 1 for a discussion of internet sales.



5.131 Issues of clinical governance are also likely to be more an enforcement issue than one of knowledge, and thus not readily addressed through the revalidation framework. That said, some requirements for practitioners to demonstrate *awareness* of their clinical governance responsibilities could be incorporated into revalidation.



6 CONTEXTUAL ISSUES

- 6.1 In addition to clinical risks, there are a number of contextual factors that may influence risks in optical practice. These could relate to the environment in which the practitioner works, the type of employment he or she is in, and the patient profiles common to the practice. Whilst the majority of specific evidence (obtained either through literature or through consultation with the optical community) relates to optometrists, these contextual risks in most cases apply to dispensing opticians as well.
- 6.2 Opinions on the extent to which contextual factors contribute to risk often differed across stakeholders. Whilst a number highlighted certain types of employment or practice as being more 'risky' than others, there was greater consensus that risks are usually down to the individual practitioner or particular business. For example, there may be some domiciliary practices with bad reputations, but there are also some excellent ones. Similarly with locums — some may be uncommitted and careless, with a poor sense of accountability, but others could be experts in their field with a wide range of experience.
- 6.3 There will be outliers in any form of practice and appropriate mechanisms for dealing with these should be in place, but labelling entire areas as 'risky' is often not possible. There are, however, inherent characteristics in some practice areas that increase the possibility of risk, and these are explored here.
- 6.4 This chapter is structured differently to the preceding one, and the end of each section includes a brief summary of the level of risk and recommendations relevant to revalidation.

Length of time in practice

- 6.5 There is a thought that newly qualified practitioners do not receive enough practical experience to equip them to effectively diagnose all optical conditions and diseases. The comments raised were related more to risk aversion in diagnosis and clinical judgement, however, than to increased riskiness. Of particular concern were referrals made to hospital eye services for glaucoma, many of which turn out to be false positives. Suggestions for extended hospital practice were made.
- 6.6 However, these comments have been disputed by both the AOP and the College of Optometrists. They consider the pre-registration training programme for newly qualified optometrists to be intensive, and the students receive enough practical exposure to compensate for any shortfalls in their degree studies. They are required to keep a portfolio and proactively find cases of certain diseases and conditions to prove that they are familiar with them. It is not widely considered that newly qualifieds present a particular risk.
- 6.7 It is perhaps more likely that practitioners who qualified a long time ago may pose a higher risk if they have fallen out of touch with new methods, or feel so confident in their abilities as to be incautious. A systematic review of studies investigating the relationship between clinical experience of American physicians and the quality of health care found



an inverse relationship between the number of years that a physician has been in practice and the quality of care that he or she provides, and that physicians who have been in practice longer may be at risk of providing lower-quality care.⁶⁸ This is contrary to the general belief that physicians with more experience have accumulated knowledge and skills during years in practice and therefore axiomatically deliver higher-quality care.⁶⁹

- 6.8 Although this study received criticism from the medical community regarding research methods and definitions of care quality, two important outcomes relevant to our research remain largely undisputed.⁷⁰ First, newer qualified physicians, whilst lacking experience, are not more 'risky' in terms of deficient knowledge than more experienced practitioners. Second, practitioners cannot maintain competence simply through accumulating experience, and importance must be attached to continuing professional development, particularly in areas of new knowledge and practice standards. Similar to recommendations from nearly all stakeholders consulted in this research, the paper highlights that education should be "active, self-directed, and embedded in clinical experience rather than passive "seat time" unrelated to clinical experience".⁷¹
- 6.9 Older optical practitioners may run the risk of not remaining up to date with new developments in knowledge or equipment. CET is designed to ensure that practitioners remain up to date in the competencies required for registration. However, there is no requirement to keep abreast of new developments. The majority do, and the professional bodies do provide substantial information and guidance in such areas. However, leadership from the GOC, in association with the professional bodies, highlighting a few new developments each year/cycle and making CET in these areas compulsory for those to whom it is relevant has been suggested as a good idea.
- 6.10 Optical businesses are usually active in identifying new developments and keeping up to date in an attempt to keep patients (and attract new ones). However, patients of isolated practices, or those with dwindling patient numbers, may lose out if new equipment or knowledge is not exploited. PCTs do have a role to inspect practices and pick up outliers in terms of equipment, and there is an existing check in this regard. PCTs would not, however, usually assess the application of developments in knowledge or competence, and thus a more formal way of ensuring new, relevant knowledge is circulated may be useful.

⁶⁸ This relationship held for medical knowledge, adherence to nationally accepted guidelines and standards, and patient outcomes. It was consistent across many specialities, across measures of performance and across many studies spanning several decades.

⁶⁹ Choudhry N, Fletcher R and Soumerai S (2005) 'Systematic Review: The Relationship between Clinical Experience and Quality of Health Care' *Annals of Internal Medicine*, Vol 142, No.4 <http://www.annals.org/content/142/4/260.abstract>

⁷⁰ These critical responses highlighted a number of methodological problems with the original article and provided sufficient counter evidence that makes it impossible to conclude that more experienced physicians are 'worse' than younger ones. See various letters in 'Comments and Responses', *Annals of Internal Medicine* (2005), Vol 143, No. 1, p84-88

⁷¹ Weinberger S, Duffy F and Cassel C (2005) 'Practice makes perfect...Or does it?' *Annals of Internal Medicine* Vol 142, No. 4, p302-304



- 6.11 An example of how CET works in this area comes from a study investigating the content of optometric eye examinations. The authors find it encouraging that 22 per cent of optometrists in their sample used slit-lamp binocular indirect ophthalmoscopy on a patient at increased risk of glaucoma, and attribute this at partly reflecting CPD in this area in recent years.⁷²

Recommendations for revalidation

- 6.12 The length of time in practice does not appear to pose a large risk, either for newly qualified professionals or those who have been qualified a long time. The circulation of developments in knowledge and equipment has been highlighted as important, however, and the GOC's CET programme could assist in this regard by awarding CET points for the studying of new areas of knowledge so that all practitioners are kept up to date with new technologies and diagnoses. This would require input from professional and educational bodies, and should be sufficiently broad so as to enable practitioners to focus on innovations within their own areas of practice.

Locums

- 6.13 Concern was raised by a number of stakeholders that those optometrists and dispensing opticians self-employed as locums could pose a risk to patient health and safety. Evidence is largely anecdotal or linked to other professions, and there are no available supporting data.
- 6.14 There are a number of factors contributing to the risk posed by locums. If a practitioner is using his or her locum work to complement existing permanent work then there could be a risk of him or her being overworked, leading to an increased risk of errors. Not having a resident practice could mean the work is less conscientiously done as accountability is reduced, although this would not apply to those locums who are employed on a semi-permanent basis at a limited number of practices. The scope for sanction of locums, or addressing areas needing improvement, could be limited if an employer merely dismisses an unsatisfactory locum instead of reporting him or her to the GOC or taking the trouble to address the underlying problems or shortcomings. This would be compounded if the locum left before the problem was identified. Finally, anecdotal evidence from some professional bodies suggests that insurance claims against practitioners involve a greater proportion of locums than permanently employed staff. However, as claims details do not at present note the employment status of the practitioners this claims cannot be backed up by evidence.⁷³ Placing some obligation on employers to monitor their locums more closely could therefore be useful.

⁷² Shah *et al* (2008) 'Glaucoma detection: the content of optometric eye examinations for a presbyopic patient of African racial descent' *British Journal of Ophthalmology*, published online 5 December 2008

⁷³ In relation to this, some professional bodies have undertaken to investigate the feasibility of recording information about practitioners' type of employment in insurance claims.



- 6.15 It is noted that these issues are likely to be far more closely linked to the nature of the practitioner rather than the fact they are a locum, something that revalidation is unlikely to address. CV and reference checks, for example, on the part of the employer would be more effective in reducing the risk of hiring a locum with a poor track record.
- 6.16 Furthermore, many locums are very experienced who do not belong to a residential practice due to other commitments (for example those who are involved in academia, or associated with an optometric institution, or provide advice to PCTs). It is also likely that a locum who moves around areas will develop a wider range of experience.
- 6.17 Evidence of the risk posed by locums in other professions highlights issues with employment systems and communication breakdowns as the main problems, as opposed to locums being inherently more 'risky' than permanent employees in terms of competence. An investigation conducted by the Commission for Health Improvement into the employment of locum doctors in the NHS was highly critical of non-adherence to systems in place.⁷⁴ The report, mandated to investigate the NHS systems rather than the competence of individual locums in question, did not refer to locums as being inherently risky. What it did highlight was that a lack of controls in employing locums (such as checks of previous employment and competence levels) that were not an issue when employing permanent staff meant that patients were being placed at risk.⁷⁵ The issue, at least with locum doctors, appears to be a systemic one, and the failure to undertake the same rigorous checks on their experience may result in the poor quality ones not being adequately filtered.
- 6.18 Other information about locum GPs suggests that they could possibly be exposed to more medico-legal risk than permanent partners. Unlike permanent GPs, locums often only have one opportunity to make a good first impression, and a bad impression can provoke some patients to seek redress, when, in most cases, there has been no human error. The Medical Protection Society's experience is that a breakdown in communication and patients' dissatisfaction with a locum doctor's manner and attitude frequently give rise to complaints and claims.⁷⁶
- 6.19 In FODO's opinion the main issue with locums is one of expectations between them and employers. There is the danger of a locum being put under pressure by an employer to carry out services they are not comfortable with (for example fitting contact lenses) in order that patients are not turned away. FODO said that contracts should be clearer in this regard, and that both the locum and employer should know exactly what is expected in terms of service provision.

⁷⁴ Laurance, J (2001) 'Lack of controls on locums 'puts patients at risk'' The Independent, Friday 4 May 2001

⁷⁵ Problems with locum doctors have been highlighted before, notably by the Audit Commission in 1999, which found a third of hospitals did not bother with references.

⁷⁶ 'Editor's letter' (2009) *Sessional GP* (An annual publication from the Medical Protection Society) <http://www.medicalprotection.org/uk/education-publications/>



6.20 In this light, the AOP provides guidance for locum optometrists and businesses using their services. It highlights some potential disadvantages of employing locums but these are largely related to managing expectations (for example to ensure that the locum has the necessary qualification and experience that the business requires) rather than to the fact that locums are 'poorer' practitioners in general. It urges businesses to accept the responsibility of checking the locum's background and work experience.⁷⁷

Recommendations for revalidation

6.21 If the claims that locums are on average more risky than permanently employed practitioners are accurate, a further level of analysis would still have to be undertaken to discover the root cause of this increased risk. There is no compelling reason why a locum practitioner should be inherently less competent than one who is permanently employed. As mentioned, it is likely that any increased risk is a combination of individual characteristics (possibly relating more to conduct than incompetence) and systemic failures (where any lack of competence could remain undetected or unaddressed for a long time).

6.22 The scope for revalidation to address any increased risk in the locum group is therefore likely to be limited. Ensuring that locums are fit to practice through the same revalidation mechanisms applied to other types of employment seems to be an appropriate solution, potentially with some additional requirements on the mode of CET if the locum is also identified as an isolated, or disengaged, practitioner.

6.23 What may also be useful in terms of revalidation is for locums to be required to elicit some sort of 'appraisal' from a number of employers as part of their CET points. This would have to be carefully structured, however, to avoid placing unnecessary burden on employers and to keep in line with HMRC rulings regarding self-employment.⁷⁸

6.24 In addition to professional revalidation, employers should also have a responsibility to conduct appropriate reference checks on locums and clarify expectations regarding service scope. They should furthermore be encouraged to address cases of negligence or incompetence, referring cases to the GOC where necessary.

6.25 Some stakeholders have suggested that the increasing supply of qualified optometrists is likely to reduce the need for employers to rely on locum practitioners to meet recruitment needs, and in time locums will be used because they are wanted, and not only because they are needed.⁷⁹ Poor quality locums (or in fact any type of optometrist) may then battle to find employment in an increasingly competitive market, thus reducing the associated

⁷⁷ 'Guidance for locums and people employing locums' Association of Optometrists (<http://www.aop.org.uk/1131707240.html>)

⁷⁸ Changes in HMRC rules now place employers at risk if they provide their locums with formal appraisals, as this may be taken as evidence of an employment contract and thus undermine the self-employed status of the locum.

⁷⁹ For example, the number of optometrists authorised by PCTs in England to carry out sight tests has increased by 40 per cent between 1998 and 2008. See NHS Information Centre Statistics (2009) 'General Ophthalmic Services: Workforce Statistics for England and Wales 2008'



risks. However, recording poor performance and conducting reference checks will still be an important obligation for employers.

Isolated or disengaged practice

- 6.26 An additional issue with self-employed locums is that they can be very isolated from other practitioners and miss out on valuable supervision or shared learning. Isolated practice is not reserved for locums, and presents a separate area of risk. Whilst there is no literature or data available to support this (for example, GOC complaints data do not disaggregate according to the type of employer), a number of stakeholders have mentioned this as an area of risk.
- 6.27 When identifying areas of risk, the definition of isolated practice is very important. The term 'isolated practice' refers to those practitioners who seldom interact with other optometrists or dispensing opticians. This can either be for geographical reasons or ones related to practitioners' attitudes towards their work. The fact that a practitioner is physically isolated (e.g. works in a rural area, or operates a sole-ownership practice) is not sufficient for our definition of isolated, as these may make a particular effort to interact with colleagues on a regular basis. An alternative term for isolated in this case could be 'disengaged'.
- 6.28 The main problem with isolated (i.e. disengaged) practice is that practitioners are not exposed to supervision or review by colleagues, and mistakes or areas for improvement may go unnoticed. There are also not opportunities for shared learning of successes or failures, identified as being particularly useful in developing knowledge.
- 6.29 In slight contradiction to our initial definition, there may be some risk related to practitioners working in geographically remote areas if they are unable to refer cases that fall outside of their own personal expertise or comfort areas. For example, a practitioner on a high street who does not regularly fit contact lenses will easily be able to refer a patient to a more competent optometrist, whereas the same optometrist working in an isolated area may not have that option. Patients could therefore be exposed to a higher level of risk in visiting a practitioner who is not able to select the cases he or she sees.
- 6.30 A final issue with isolated practice, raised by ABDO, relates to isolated optometrists who do not work with dispensing opticians and who may run the risk of becoming out of date with respect to the most effective optical appliances and visual aids. ABDO publishes regular information and guidance on optical appliances, and runs relevant CET courses and conferences. A suggestion was made that optometrists involved in dispensing should be required to make up some of their CET points in this area, most effectively through attending ABDO events.

Recommendations for revalidation

- 6.31 To counteract the effects of disengaged practice revalidation could usefully consist of a requirement for more interaction with other practitioners and shared learning through CET. There could be a stipulation for all practitioners to obtain a certain proportion of CET



points through attending workshops or conferences (i.e. modalities involving contact with other practitioners as opposed to distance learning). Shared learning in the form of practitioner meetings has also been highlighted as a very effective means of disseminating good practice and discussing problems and errors. Such meetings could become a more integral part of CET (particularly if they were accompanied by a requirement to produce a report of the meeting as proof of attendance).

Domiciliary care

- 6.32 Another practice area that is potentially open to more risk is domiciliary care. Again, this will depend on the practice itself, but there are a number of factors that may predispose domiciliary eye care to involve more risks for patient health and safety.
- 6.33 Most of this evidence comes from individual stakeholders, as there are no readily available data (e.g. complaints) that point to domiciliary workers being a higher risk. Anecdotal evidence of certain PCT complaints suggests that a larger proportion of complaints relate to domiciliary optometrists as opposed to those who work in a fixed setting.

Types of domiciliary care

- 6.34 Any challenges and risks in domiciliary care are likely to differ depending on whether the care is provided in the patient's home, or within a nursing or care home. A visit to a patient in their own home is more likely to be one-to-one, thus raising risks of inappropriate conduct. Extra care must be taken by the optometrist or dispensing optician to put the patient at ease, and the practitioner must be trained to manage uncooperative patients and those requiring some help to move around, handle accidents, and set up the testing room each time.
- 6.35 Nursing home visits are in a more controlled environment, but with another set of challenges. Group testing is often advocated by the PCTs as it is less costly. However, if the patients are lined up and waiting this could put pressure on the optometrist and on the patients themselves. Patients often need coaxing to cooperate and respond to tests, and this can be difficult if the optometrist feels he has a time limit, or if the patient feels rushed. Patients within nursing homes are also more likely to suffer from illness, dementia or be particularly frail. This raises implications for the quality of the test results.

Time pressures and cost cutting

- 6.36 As with other providers of domiciliary care (such as adult social care), providers of domiciliary eye care may be under increased time pressure when visiting patients at their homes or care homes. NHS fees do include a top-up for domiciliary visits but this may not be sufficient and practices may try to cover costs by fitting in as many visits in a day as possible. This may lead to reduced quality of care.
- 6.37 In the case of domiciliary social care workers, time pressure is one of the main causes of poor quality care and a frequent cause of concern for workers and the recipients of care.



However, comparisons should be drawn circumspectly, given the differences in contracting procedures and service rates between optometry and social care.

Patient group

- 6.38 As NHS-covered domiciliary eye visits are reserved for patients both qualifying for free eye tests and unable to easily leave their homes, those who receive this care are by definition among the most vulnerable, and there is the risk that poor quality care will either not be addressed, or will result in more serious consequences.⁸⁰ This patient group, including the elderly and those suffering from chronic illnesses, is the most at risk of visual impairment or blindness through predisposition to eye disease; poor vision due to outdated prescriptions; and accidents and falls as a result of visual impairment. Visual impairment is strongly associated with falls and hip fractures, and each year over 189,000 falls are associated with visual impairment, with 89,500 attributed to the visual impairment itself.^{81 82}

Quality of information

- 6.39 Domiciliary optometrists and opticians may also have to make decisions and diagnoses on less than perfect information. Patient responses may be poor, particularly if the patient is suffering from illness or disability, or has difficulty in communicating or cooperating. Domiciliary optometrists and opticians should therefore pay particular attention to developing good communication skills. Furthermore, the quality of portable equipment may impact negatively on the accuracy of test results. Domiciliary practitioners are required to have the most up to date equipment (within reason), but often the technique required for portable equipment is more difficult to master, and specialised equipment (such as a Volk lens) may not be available in portable form.

Existing checks for domiciliary practices

- 6.40 There are a number of additional checks that a practice has to go through in order to be registered with a PCT to provide domiciliary eye care. They must first be registered with the GOC (not all optical businesses have to be), and all their employees cross-checked with the Criminal Records Bureau and POVA (Protection of Vulnerable Adults) scheme (and will be covered by the new Vetting and Barring Scheme as well). The provider is also inspected by the PCT; this includes ensuring the portable equipment to be used by the practitioners is suitable.

⁸⁰ The vast majority of domiciliary visits are paid for by the NHS and there are very few private clients

⁸¹ College of Optometrists and British Geriatrics Society (2003) 'The importance of eye care in preventing falls'

⁸² Scuffham P.A, Legood R, Wilson E.C.F. and Kennedy-Martin T (2002) 'The incidence and cost of injurious falls associated with visual impairment in the UK' *Visual Impairment Research* Vol 4 (1) p1-14



The importance of employer appraisal and record keeping

6.41 The Outside Clinic provides an example of a comprehensive and well-developed employer appraisal system. The motivation for such a comprehensive and high-tech appraisal system does not stem from any particular risks in domiciliary optometry, but more from the particular nature of the area and from the personal motivation behind the organisation. However, a number of the factors mentioned do serve to separate domiciliary eye care from high-street businesses and may have the potential to create more risk in other, less conscientious practices. These include:

- (a) The average age of domiciliary optometrists (and therefore experience) is lower than those in regular practices due to the demanding nature of the work (the need to carry heavy bags of equipment in and out of houses and cars many times a day; set up and dismantle everything the test room on each visit;⁸³ and handle difficult patients). Therefore this scheme is in part a support and training for the profile of employees.
- (b) Practitioner support and shared learning provided by the appraisal is important in any situation. The opportunity to be advised by peers is invaluable, and this proportion of the appraisal is valuable no matter how experienced the optometrist is. This ties into other comments about shared learning and the importance of face-to-face CET events.
- (c) Domiciliary care is in general not commercially viable, in that it is difficult to fit in many visits a day and travel takes a lot of time. The majority of patients are also paid for by the NHS and compensation is not generous. Part of the Outside Clinic's stated business model is to provide an excellent service and thus retain their market share.
- (d) The nature of domiciliary care is more risky in that the patient group is one of the highest risk groups, both in terms of the diseases and conditions they may have, and because many of them have not had/do not have eye test often and so may require urgent attention. The responsibility on the optometrist to detect dangerous conditions is therefore higher.
- (e) In addition, adapting to the domiciliary environment requires training and should be reviewed frequently. Because the optometrists are on their own and do not personally report to a central place every day extra monitoring needs to take place.
- (f) The clinical record aspect of the appraisal is also very important given the nature of the service. Complaints are often lodged by patients who perhaps do not remember all that was done during an examination, or by relatives who were not present. It is therefore imperative to keep clear, comprehensive and up to date records to address any complaint and avoid unnecessary prosecution or investigations.

⁸³ This would not usually apply to domiciliary visits conducted in a nursing home as the same test room is used for all patients



6.42 It is the view of FODO that in domiciliary care the market plays a large role in standards of care. As costs are high and the revenues low (for example the vast majority of patients seen by Health Call and the Outside Clinic are using NHS vouchers) and margins are much tighter than high-street practices, practices compete almost entirely on quality. Although optometrists do not receive any domiciliary training as part of their formal education, the training provided by the domiciliary businesses is generally of a high standard. However, it is possible that this does not apply across the board, or that training deals more with the idiosyncrasies of domiciliary care than with over-arching practitioner competence.

Recommendations for revalidation

6.43 It is not clear that there is any scope for revalidation for optometrists and dispensing opticians operating in domiciliary care. Some of the risks mentioned relate to the functioning of the business rather than the competence of the practitioner, and other issues appear to be more along the line of 'challenges' than risks. No recommendations have been forthcoming from the optical community.

6.44 Given the certain patient profile involved in domiciliary care, it may be useful to ensure that practitioners are up to date in their knowledge of serious eye conditions that are more likely to affect elderly people. This is expanded below.

Practice types and patient profiles

6.45 The practice environment may be thought to have an impact on the quality of the care provided by optometrists and dispensing opticians. We have already discussed potential risks in isolated practice, but in terms of other practice types there is no evidence that indicates that this is the case. A number of studies that investigate the quality of care provided by community optometrists (for example, how they manage and test patients at risk of glaucoma; with migraines and headaches; complaining of flashing light and floaters; and the quality of the clinical records kept) found that for the majority of tests performed no statistically significant differences in test frequencies or results existed between the types of practice (for example independent practices, small multiples and large multiples).⁸⁴

6.46 There are however a number of factors that make certain groups of people more at risk to eye conditions, or susceptible to the negative consequences of poor quality eye care. Vulnerable people visited in their homes or care homes have already been mentioned. Age is often a predictor of eye conditions, such as glaucoma, macular degeneration and cataracts. Diabetics are at higher risk of eye conditions (a risk which also increases with age), and people of Afro-Caribbean descent are at higher risk of glaucoma.

⁸⁴ All authored by Shah, R *et al* (2009). See the bibliography in Appendix 2 for the full references.



- 6.47 However, the risks associated with certain patient profiles do not necessarily translate into practitioner risk. On the one hand, it seems reasonable that practitioners for whom a large proportion of patients have a high-risk profile should be more aware of the types of conditions they are likely to be exposed to, and perhaps undertake CET that reflects this. On the other hand, a practitioner often in contact with a certain at-risk patient group and frequently required to diagnose or manage particular conditions is likely to be relatively experienced in this area and thus less of a risk than a practitioner who seldom is exposed to such conditions or patients. Furthermore, there is an argument that practitioners should be fit to practice in *all* core competencies regardless of their regular patient groups, particularly if the ability to refer cases to other optometrists is limited.

Recommendations for revalidation

- 6.48 It therefore does not seem feasible to stipulate revalidation requirements according to a practitioner's patient profile. It could, however, be useful to encourage practitioners to undertake a certain amount of CET (for example) related to their main practice scope or patient profile. Examples here would be domiciliary optometrists and opticians keeping up to date with developments in low vision aids and AMD diagnosis.



7 CONCLUSIONS AND RECOMMENDATIONS

Summary Schematic

- 7.1 The table below presents a summary of the practitioner risks. We have included contextual risks, where relevant, to illustrate how these may relate to certain adverse events and compound practitioner risk.
- 7.2 We have included an initial judgment on the level of clinical and practitioner risk for each adverse event. This is to reinforce the importance of weighing the adverse clinical outcomes of a disease or condition against the degree of practitioner risk. Evidence of high clinical risk will not necessarily support the need for revalidation; it is the degree of practitioners' competency risk that is most important, as this is what revalidation aims to address.
- 7.3 That said, the level of clinical risk will have some relevance, in that a lack of skills or expertise will have more serious consequences in areas of higher clinical risk.
- 7.4 We have also made an initial judgement as to the scope for revalidation. The nature and frequency of revalidation is likely to vary both according to practitioner and contextual risk, and this is discussed further below.



Table 7.1: Summary of Practitioner and Contextual Risks Relating to Adverse Events

Adverse Event	Clinical Risk	Practitioner Risk	Related Contextual Factors	Scope for Revalidation
Glaucoma	High	Medium	Patient profile (age and ethnicity) Domiciliary care (related to patient profile; accuracy of equipment) Length of time in practice (being up to date with equipment and testing techniques)	Medium. Largely concerns appropriate tests and referral refinement.
Detached retina	High	Medium	Length of time in practice (being up to date with equipment and testing techniques)	Medium/low. Largely concerns eliciting and recognising symptoms.
Spectacle non-tolerance	Low	Low	Length of time in practice (less experience may result in greater incidence of non-tolerances) Isolated/sole practitioners (those that do no work with dispensing opticians and may not be up to date with appliances) Locums (not around to learn from re-visits)	None. However, outside of revalidation auditing could be promoted as good practice.
Diabetic conditions	High	Medium/low	Patient profile (age and diabetic) Domiciliary care (patients may not have access to screening programmes)	Medium/low. Perhaps include targeted CET in this area.
Macular degeneration	Medium (more so for the wet kind as dry cannot be treated)	Medium/low	Patient profile Domiciliary care	Low. Mainly concerns distinguishing between AMD and other age-related conditions.
Contact lenses	Medium	Low	Isolated/rural practice (less likely to refer to more experienced colleague) Locums (may not be around for after care)	Low. Largely concerning communication of hygiene regimes.
Children	Medium	Low	Patient profile Isolated/rural practice (less likely to refer to more experienced colleague)	Low. Target CET in this area.
Independent	Medium/high	Low/not	Most likely to be carried out in	Low. Area of



prescribing		known	hospital setting.	practice should be monitored.
Decision-making	N/A	Medium	Particularly important for more rare conditions where opportunity for refinement is less frequent.	Medium. Increase exposure to cases, either in practice or through simulation.
Communication	N/A	Low	Particularly important for child care, contact lenses, suspected retinal detachments, spectacle non-tolerances, locums and domiciliary care.	Low. Focus CET on the importance of communication, with emphasis on areas highlighted.
Record-keeping	Not classified as a risk		Particularly important for Domiciliary care; Locums; contact lenses	None.

General Conclusions

Adverse events

- 7.5 The research presented above has not identified any major risks in the optical profession. The types of risk are limited to practitioners not conducting all appropriate eye health tests or eliciting full patient symptoms, and issues of communication. There is no evidence of high risk in terms of gross mismanagement or misdiagnosis of eye health conditions.
- 7.6 That said, there are some clinical areas that should receive more attention through revalidation. These are those areas where a high clinical risk is combined with some degree of practitioner risk. These include:
- (a) Glaucoma
 - (b) Detached retina
 - (c) Diabetic conditions
 - (d) Macular degeneration
- 7.7 There are a number of lesser risks that involve both a lower clinical and practitioner risk. These include contact lens fitting, child care and communication skills.

Contextual risks

- 7.8 No contextual factors were identified as being of particularly high risk, although there is some risk associated with isolated or disengaged practitioners, those who have been qualified a long time and locums (although there is some debate concerning locums). However, the potential problems with locums appear to be related more to conduct and systemic issues than lack of skills or competence, which raises questions as to the scope for revalidation to address this area of risk.



Recommendations for Revalidation

Clinical risks

- 7.9 Part of the identified practitioner risk associated with the higher clinical risks (outlined in paragraph 7.6) is the lack of exposure to eye health conditions and thus opportunity to practice and refine decision-making. Decision-making has been highlighted as an important overarching skill, and includes knowledge of appropriate tests that should be conducted in various situations (including the use of correct and up to date techniques and equipment), which relates directly to the identified areas of risk highlighted above.
- 7.10 Revalidation could therefore usefully focus on improving decision-making in these higher risk areas. This could be done by focusing on training (for example online case scenarios, clinical workshops, or time spent in an eye hospital environment) to improve both decision-making skills in general and the handling of the specific conditions. Any accreditation or test to ensure practitioner competence could fall within the training framework (for example, practitioners receive a score at the end of an online case simulation exercise).
- 7.11 The areas of lower risk identified in paragraph 7.7 could be usefully addressed through an enhanced CET scheme, possibly without the need for formal accreditation. Suggestions here include requiring all optometrists to undertake a certain proportion of CET points in these areas to ensure that they keep up to date. As an example, dispensing opticians who are on the contact lens speciality register are required to undertake six CET points in this area.

Modes of CET

- 7.12 A number of suggestions have been made as to how the existing CET scheme could be adjusted to meet the needs of revalidation. One such adjustment directly relevant to risk is the mode of CET.
- 7.13 In the discussion on contextual risks the most prominent risk identified was that of disengaged practitioners. In order to ensure that all practitioners interact with their colleagues and participate in shared learning, revalidation could stipulate a certain proportion of CET points to be gained through modes that involve group interaction (as opposed to distance learning).

Risk profiling

- 7.14 Risk profiling of registrants to determine their individual requirements for revalidation can be based on either their scope of practice or contextual factors (such as their type or



employment or length of time in practice). However there are a number of arguments against individual risk profiling in either of these areas.

- 7.15 Relating to scope of practice, there may be some merit in encouraging practitioners to undertake focused CET in the areas where they do the most work.⁸⁵ However, requiring practitioners to only be revalidated in these areas would not necessarily address the higher risk areas discussed above in paragraph 7.6. In addition, optometrists are currently expected to be up to date in all the core competencies and should be fit to handle any patient that seeks their professional advice. Limiting revalidation to certain practice areas raises the question of licence to practice: should practitioners be able to specialise in only a few areas and thus be prevented from working in others? This does not seem reasonable, and would involve a significant change to the way in which the optical profession is organised.⁸⁶
- 7.16 Risk profiling in terms of type of contextual factors (e.g. disengaged practitioners, those who have been qualified a long time, and locums) may be more acceptable, but this must be weighed against the relative risks (which are low) and the associated costs of undertaking and monitoring the profiling process.
- 7.17 Asking practitioners to identify how 'engaged' they are with colleagues and then stipulating a certain amount of interactive CET according to their level of engagement could be effective, but it may simply be more practical to have a requirement across the board for *all* practitioners to engage in a certain proportion of interactive CET, which would cover any particularly disengaged ones.⁸⁷ That said, if the costs of providing such interactive CET are particularly high then it may be more cost effective to limit this requirement to disengaged practitioners, which would then require some process of profiling.⁸⁸
- 7.18 Practitioners who have been qualified a long time may not be up to date with the latest developments in optical practice. The circulation of developments in knowledge and equipment has therefore been highlighted as important. However, this would be valuable for *all* practitioners and it does not seem appropriate to limit this to those who have been qualified a long time.⁸⁹ Having some mandatory CET points dedicated to clinical developments would be one way in which this issue could be addressed.
- 7.19 Having particular revalidation requirements for locums is unlikely to be effective as the potential problems here appear to be related more to conduct and systemic issues than lack of skills or competence. It may be useful to require locums to elicit some type of

⁸⁵ For example, domiciliary care, child care, contact lens fitting, diabetic management etc

⁸⁶ As an example, the Association of Contact Lens Manufacturers recommends that any requirements regarding contact lenses should be made for all practitioners; enabling optometrists to 'opt out' of the contact lens competency would likely create a patchy availability of an important expertise.

⁸⁷ The process of identifying the degree of disengagement would have to be carefully designed to avoid misreporting.

⁸⁸ This will depend on what 'interactive' CET is defined as, and on the extent to which this mode of CET already exists.

⁸⁹ Particularly considering the low risk they pose and difficulties in defining what 'a long time' should be.



review or reference from all employers to ensure that any issues are recorded and dealt with; locums could be required to keep these reviews as part of a revalidation portfolio.

Dispensing opticians

- 7.20 A final, separate consideration must be given to dispensing opticians. Throughout the research the majority of identified risk areas have applied to optometrists' scope of practice (being largely related to eye health issues rather than sight tests and correction). Risks associated with contact lenses will apply to dispensing opticians, but in this case a specialist dispensing opticians' register already exists, and these practitioners are required to undertake additional CET in this area.
- 7.21 In addition, dispensing opticians are not required to be registered with the GOC if they are not on the contact lens registers, or if they are not involved in child care or the treatment of blind or partially sighted patients. Whilst the presence of unregistered opticians is subject to some criticism, it has been deemed that this group is sufficiently low risk not to require registration. It is also the case that some registered dispensing opticians are not involved in child care or the treatment of blind or partially sighted patients or in dispensing contact lenses.
- 7.22 Given this and the practice areas involved, it therefore seems appropriate that any revalidation of those dispensing opticians who are registered should be as light touch as possible. Areas of focus should be some requirement to undertake targeted CET in areas such as child care and low vision (i.e. those areas of practice for which dispensing opticians must be registered with the GOC),⁹⁰ and possibly stipulations of CET modes as discussed previously.

⁹⁰ And continue with the additional CET for contact lenses



APPENDIX 1: ADDITIONAL INFORMATION

Literature

A1.1 This section of the Appendix contains additional material on risks and other issues referred to in the main body of the report.

Over-referrals of glaucoma cases

A1.2 Studies have found that between 20 and 65 per cent of optometrist referrals for glaucoma are false positives (i.e. subsequently found not to have the disease).^{91 92} This has been cited by a number of sources (both articles and experts) as placing a burden on already overstretched hospital eye services, with the potential to detract resources from more legitimate cases. This trend is likely to increase in the future given the aging population and an increased prevalence of glaucoma and ocular hypertension (high pressure within the eye found using similar tests for glaucoma) with age.

A1.3 Over-referrals could be considered an indication of risk if they reflect a shortage of knowledge among optometrists in terms of diagnosing glaucoma. Further research has found this not to be the case, and a number of points can be raised in relation to the 'problem' of over-referrals.

A1.4 First, experts are of the opinion that it is appropriate for optometrists to err on the side of caution and refer cases about which they are uncertain, either to a hospital eye service, an independent ophthalmologist or a more experienced optometrist. The existence of over-referrals at least reduces the risk of the disease being missed by over-confident optometrists.

A1.5 Second, given the very low prevalence of the disease and the less than 100 per cent accuracy of tests in identifying it, any number of false positive diagnoses will constitute a relatively large false positive rate. Below is an extract from a letter to the editor of *Optometry in Practice* as an example:

Suppose an optometrist saw 10,000 patients over the age of 40 years, and suppose we assume the incidence of chronic open angle glaucoma (COAG) amongst this group to be 2 per cent. If this optometrist had at his disposal a screening test that conferred hitherto unheard-of levels of 99 per cent sensitivity and 99 per cent specificity, the results would be as follows. A test that is 99 per cent sensitive would detect 198 of the 200 glaucoma cases (true positive) and regrettably miss 2 (false negative). Similarly, a test that was 99 per cent specific would show normal findings for 9,702 patients (true negative) but would fail 98 normals (1 per cent of 9,800) as abnormal (false positive). The resultant false positive

⁹¹ Cited in Azuara-Blanco A, Burr J, Thomas R, MacLennan G and McPherson S (2007) 'The accuracy of accredited glaucoma optometrists in the diagnosis and treatment recommendation for glaucoma' *British Journal of Ophthalmology*, Vol 91, p1639-1643

⁹² Bowling B, Chen S and Salmon J (2005) 'Outcomes of referrals by community optometrists to a hospital glaucoma service' *British Journal of Ophthalmology*, Vol 89 p1102-1104



referral rate would be 98/198 (49.5 per cent), which is not enormously different from the typical figures quoted in many papers.⁹³

- A1.6 The authors of the above extract make the point that it is inaccurate to view high false positive rates as due to some innate problem arising in optometric practice or amongst optometrists.
- A1.7 There are, however, several recommendations for improving referral quality. Some of these relate to contracting issues with the NHS, others to extended training among optometrists. These measures have been suggested more for the improvement of referral quality (reducing the number of false-positives and increasing the number of true-positives) than in reaction to incompetence on the part of optometrists, but some areas may be applicable for revalidation.

NHS contracting

- A1.8 A widespread cause for concern among the optical profession in England is the current General Ophthalmic Service (GOS) contract terms, in particular the NHS sight test fee and mandatory sight test with refraction. Under the old GOS contract in Scotland, when patients attended their community optometrist refraction was mandatory and there was no provision for supplemental examinations such as applanation tonometry and perimetry to be performed regardless of clinical need. Under the new contract optometrists are given more autonomy, higher fees and no restrictions or requirement on the exact nature of the tests. Whilst the contracting terms are not explicitly relevant to the revalidation research, it may be an area of contextual risk if optometrists are not empowered to carry out all the necessary tests and repeats. Furthermore, the new contract in Scotland shows the impact that additional training and accreditation has on the quality of glaucoma referrals, and highlights the room for improvement.

Length of examination time and NHS funding

- A1.9 According to FODO (2008), 71 per cent of eye examinations provided in the UK are funded by the NHS.⁹⁴ Therefore this NHS fee in effect sets the standard for all primary eye care, as the same appointment times are usually allowed for private and NHS consultations. The current NHS fee at the time of reporting was just under £20 and as the typical overheads of a community optometric practice are £100-£120 an hour this means that the usual fees received actually fund between 10 and 15 minutes of optometrist time. The system therefore can put pressure on the loss-leading eye exam to be as quick as possible and also puts pressure on optometrists to convert examinations into spectacle sales.

⁹³ Rumney N.J and Henson D.B (2009) 'Letter to the Editor' *Optometry in Practice* Vol 10 (iii)

⁹⁴ FODO (2008) 'Optics at a glance' <http://www.fodo.com/fckextras/File/OAAG%202008,%20FINAL%20FINAL.pdf>



Contract terms in England

- A1.10 The NHS sight test fee for Optometrists and Ophthalmic Medical Practitioners is £20.26 from April 2009. For domiciliary practitioners an additional payment per sight test is made of £35.67 for the first and second patient seen at one visit (each), and £8.93 for third and subsequent patients.
- A1.11 NHS sight tests and optical vouchers are only available to people below a certain tax bracket (£15,276 p.a.).
- A1.12 The NHS refunds opticians and ophthalmic medical practitioners £458 for CET undertaken in a year (loss of earnings payments). However, this only applies to those OMPs who do not have any other remunerative work other than sight tests (i.e. do not work in a hospital or general practice).

Scotland and Wales

- A1.13 The governments in both Scotland and Wales have introduced new eye health schemes that entail further training and accreditation of optometrists. These have been investigated briefly to assess the extent to which this accreditation was meant to address current risk areas or shortfalls in practitioner knowledge.
- A1.14 Both schemes appear to deal more with an extension of the scope of practice of optometrists, rather than a means of addressing existing risk areas and competence levels. With the extension of the scope of practice (for example, giving optometrists more scope to manage patients with sight-threatening conditions, or to refer them more accurately), it was felt that further training and accreditation was necessary. Discussions with academics and professional bodies have highlighted that first, such additional training is not immediately necessary, and that optometrists currently have the necessary skills and levels of competence to undertake referral refinement.⁹⁵ Second, the current levels of skills are appropriate for the current scope of practice (for example in England) and that until there are changes in the GOS contracts or service requirements of optometrists it remains appropriate that they refer all suspicious cases to the HES. The additional accreditation would not be necessary unless accompanied by the changes in contracting that have occurred in Wales and Scotland.

Scotland

- A1.15 Details of the changes to the GOS contract in Scotland have already been mentioned in the main body of the report. A summary of these changes is presented here:

- (a) eye examinations are now free for all NHS patients

⁹⁵ Although, as seen later, a review in Wales did identify the need for further guidance for optometrists on the referral and management of certain diseases.



- (b) direct referral between optometry and ophthalmology
- (c) new optometry contract covers anterior eye care (blepharitis, foreign bodies, conjunctivitis—both diagnosis and follow up)
- (d) contract covers extra tests like dilation for those who complain of flashes, floaters, or potential detachment symptoms
- (e) all over 60s will be offered dilation, to allow for a better view of the fundus
- (f) all optometrists have been trained and accredited in advanced slit lamp, Volk lenses, and visual field analysis, and will continue to be assessed on these core skills
- (g) all optometry practices have received a grant to ensure that they have a slit lamp, Volk lenses, and a full threshold field analysis
- (h) An £8,000 equipment grant will be available for each practice offering GOS whether part time or full time to ensure that the necessary instrumentation is available to offer the new service
- (i) From April 2007 Primary examination fees are £36.00, and supplementary examination fees are £21.00

A1.16 The new contract seems to be more about providing optometrists with the scope to improve their services, and have more patient-centred examination procedures, rather than filling a gap in knowledge. The increase in the NHS test fee and relaxation of the sight tests requirements allow optometrists to provide the necessary additional tests for patients without having to refer at the first sign of suspicion.

A1.17 Discussions with the optical community in Scotland raised a number of interesting points relating to the new contract. The new GOS contract gives optometrists more responsibility in terms of managing patients with eye health problems: they are expected to retain patients and treat them as far as possible in the community instead of referring them immediately to an ophthalmologist or HES. This has a number of implications for risk profiling and revalidation:

- (a) Optometrists (and perhaps opticians) are arguably expected to have a higher level of skill and competence (regarding diagnosis, treatment and the use of equipment) than their English counterparts in order to fulfil the extended Scottish GOS contract obligations.
- (b) Their scope of practice is therefore wider, and they undertake more responsibility.



- (c) Additional training is arranged by Optometry Scotland (predominately funded by the NES⁹⁶ and provided by a range of providers) in order to enhance the ability of optometrists to deliver the new GOS contract. This training is not compulsory and there is concern that some practitioners are not engaging in the necessary training and may not be fully equipped to meet all the conditions of the new contract. The main risk area identified here was decision-making, which is discussed later.
- (d) In terms of clinical risk areas identified in this report, the rationale behind the additional training is not to address an existing competency risk or lack of knowledge (in terms of the competencies required by the GOC), but rather to equip optometrists to perform well under the new contract. The fact that additional training is available in Scotland (and also in Wales) does not signify a current shortfall in baseline competency.
- (e) That said, the extended scope of practice does mean that optometrists in Scotland have more responsibility, and they must be competent to act within this. It is therefore recommended that revalidation is at least in some way tailored to the Scottish situation to ensure that practitioners are revalidated against their scope of practice, and not against the (lower) level that is required of optometrists in England.
- (f) Further discussions between the GOC and Optometry Scotland are necessary to identify the exact level of knowledge and expertise that practitioners are expected to have, and to agree on revalidation requirements that take this into account.

Wales

- A1.18 The Welsh Government has established a number of initiatives (under the Welsh Eye Care Initiatives) aimed to improve patient access to eye care and relieve pressure on overloaded ophthalmic departments in hospitals. These initiatives include packages of extended examinations and optometric services.⁹⁷
- A1.19 The two most relevant schemes are the Wales Eye Health Examination (WEHE) and Primary Eye Care Acute Referral Scheme (PEARS). The Eye Health Examination is available free of charge and on request to people in specified groups and to others on referral by their general practitioner. The examination is not a sight test and is provided outside the provisions of General Ophthalmic Services which are unaffected by the scheme. The scheme is intended to facilitate the detection of eye disease in the early stages in at-risk individuals, before significant visual loss occurs, thereby reducing the burden on the Hospital Eye Service (HES).
- A1.20 The purpose of PEARS is to address the needs of the patient presenting with an acute eye condition (i.e. ocular symptoms which require urgent, if not immediate, attention) and

⁹⁶ NHS Education for Scotland

⁹⁷ Optometry Wales



to maintain as many patients as possible in primary care by avoiding unnecessary referrals to the HES.

- A1.21 In order to participate in the PEARS and WEHE schemes optometrists need to undertake additional training and accreditation under a two-part process. Part One comprises seven theoretical modules and multiple-choice questioning covering a range of subjects relevant to the WECI. Part Two involves a practical assessment exercise including evaluation of slit lamp biomicroscopy technique and contact tonometry.
- A1.22 The evaluation of the WEHE and PEARS schemes highlighted the need to develop more guidance for practitioners on the investigation and management of some eye conditions. Guidance, covering clinical examination, symptoms, diagnosis, management and referral pathways was sent to accredited optometrists on the following topics:
- (a) Age-related Macular Degeneration
 - (b) Cataracts
 - (c) Retinal detachment⁹⁸.
- A1.23 As with Scotland, this additional training and guidance was designed to bring practitioners up to the new extended scope of practice, and not in response to an identified competency risk. In order for this additional training to be worthwhile, it needs to be accompanied by a shift in government contracting. Under the existing system (for example in England) there does not seem to be a need for additional accreditation as there is not the scope to put it into practice, and the referral of suspicious cases to the HES will continue to take place.

Public education

- A1.24 A number of concerns have been raised about public information issues. These are not immediately relevant to revalidation as they do not concern clinical or competence risks, but are discussed in this Appendix for completeness.
- A1.25 Public attendance at eye tests is one such area. Many people never have their eyes tested, or do so far less often than they should.⁹⁹ Many older people have reduced vision which could easily be corrected, but do not attend tests due to mobility problems, lack of knowledge, the propensity to adapt to poor vision or fear of the costs involved. Many that do attend in order to receive reading glasses may not return for long periods of time. The risk of developing many eye diseases increases with age, and public education should be targeted at this group.

⁹⁸ Eye Care Wales (2008) 'WEHE and PEARS protocols and guidelines'
<http://www.wales.nhs.uk/sites3/news.cfm?orgid=562&contentid=9554>

⁹⁹ For example, eye testing is no longer conducted at schools, and many people are not aware of the need to have their eyes tested.



Shopping around for spectacles

A1.26 A related public-information issue is that of patients obtaining a prescription from one practice and buying their spectacles from another practice or online. In the case of a non-tolerance then the patient does not know where the problem is (a mistake on the prescription, or an error in the dispensing, or just general non-tolerance) or where to take their complaint. This means that addressing the problem is difficult, and can result in the patient having to buy new glasses at a considerable expense. The College of Optometrists has issued public advice deprecating this practice:

The prescribing and dispensing of spectacles are very closely linked and it would be in your best interests to have your spectacles dispensed where you have your eyes examined. It is often more difficult to resolve any problems you may have with your spectacles when prescribing and supply are separated.

A1.27 Shopping around for contact lenses is different. Before a prescription is given at all the lenses are fitted and the patient is able to wear them in and ensure they are happy with the fit. Only after this process is a prescription issued with the exact specifications listed, which will then be replicated by the lens manufacturer. The only issue then is the quality of the material used, which only applies to people buying lenses from obscure online suppliers.

A1.28 An internet search for information on the dangers of buying contact lenses online yielded very few results. One article dealing with the dangers referred to a study that found that people who buy lenses online are less likely to adhere to healthy eye care practices, and that more than 23 per cent of them would skip an annual eye examination. The study was conducted in New York and deals more with issues of online retailers not checking the validity of the prescription and patients not adhering to health care, rather than problems inherent in the lenses themselves.

A1.29 As this area is largely one of patient responsibility it does not have any implications for revalidation. Optometrists should be aware of the need to communicate the problems involved to their patients.

Other checks and balances

Risk-aversion

A1.30 A common theme that ran throughout the consultation with optometrists, opticians and professional and educational bodies is one of risk-aversion in the optical profession. Optometrists are usually reluctant to take on cases outside their area of everyday practice. The risk involved in a certain area may be higher (such certain types of surgery; certain types of conditions/diseases) but the fact that an optometrist is working in that area means that he or she has undertaken the necessary additional training or professional development and is confident in that area.



A1.31 This is the case in child care or contact lenses, and can also be applied to other areas of speciality. Optometrists working in these areas will modify their behaviour by undertaking relevant training or CET and gaining experience — they will not operate in areas that they do not feel qualified in, and will often refer such cases to colleagues. A problem may come with those optometrists who either believe they are experts at everything and are not, or those who work in remote practices and the ease of referring cases to other optometrists is reduced. In these cases it could be reasonable for them to revalidate against more areas of practice, provided these areas pose sufficient risk.

A1.32 Some requirement for optometrists working in isolated or disengaged practice to attend group CET events, such as peer reviews, would also help in this area by exposing them to other colleagues and improving their network of optometrists to whom they can refer cases.

Professional bodies and commercial considerations

A1.33 In addition to optometrists' propensity towards risk-aversion, there exist other checks in the optical profession that help to mitigate risks. First is the commercial nature of the majority of practices, which is particularly relevant to spectacle non-tolerances and domiciliary care. Businesses have a vested interest in avoiding bad practice or incompetence, and as such may go to some lengths to address errors committed by their staff, or encourage attendance at CET events in certain areas. That said, however, commercial considerations may also incentivise businesses to put optometrists under time pressures, or have too much emphasis on spectacle sales.

A1.34 The professional bodies provide a large amount of guidance, both clinical and commercial. These bodies all have an interest in improving the quality of optical care and as such are a good source of information and a good means of raising standards. When there is a new risk or technique professional and academic bodies provide guidance to their members (such as for glaucoma; record keeping; special contact lenses). Therefore anything the GOC does in the way of revalidation should be done in collaboration with these bodies to avoid 'reinventing the wheel'.

A1.35 Similarly, the professional bodies have a vested interest in keeping insurance claims as low as possible in order to keep premiums low. FODO publishes the results of its annual insurance claims to members to highlight areas of potential risk and where they should take more care, and where necessary FODO provides guidance and training on risk areas. They also provide company-specific results and guidance. This forms, to a certain extent, a self-regulatory system.

A1.36 Large commercial providers are also interested in keeping claims low as a means of protecting their brands. In particular those providers with complementary services (such as Boots or Tesco) who stand to lose a great deal should there be a high-profile case of negligence or incompetence.



A1.37 Costs of regulation must be weighed up against the potential benefits, and also be compared with the profits of businesses. Rising costs that erode profits may result in lower quality care being provided, or pushing patients towards low-cost providers.

Primary care trusts (PCTs)

A1.38 PCTs, through their optometric advisors, conduct checks on optical businesses every three years. Whilst this only covers those with NHS contracts, it is a substantial proportion of the profession. They check for breaches in contracts, and therefore focus more on systems and equipment than the competency of the practitioners. The majority of the problems that they are likely to encounter are rather formal contract issues, and they do not see many cases of 'risks' or of incompetent practitioners.

Additional Sources of Evidence

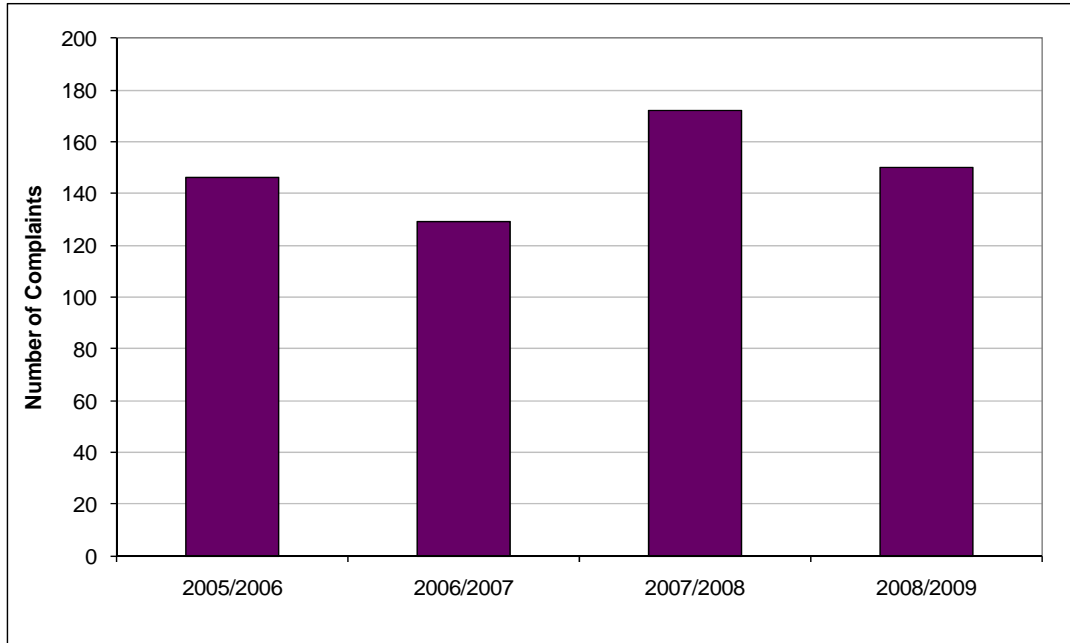
Fitness to Practise data

A1.39 The scale of risk within a profession can often be assessed by the complaints received and investigated by regulatory bodies. The GOC's Fitness to Practise records show the number of complaints received about optometrists and opticians over each year. The Optical Consumer Complaints Service (OCCS) also receives complaints about opticians, but these are more 'consumer service' focused, and deal mainly with errors in dispensing and price issues. Some of the underlying causes of these complaints are, however, relevant to risk profiling, and where necessary the OCCS will refer complaints to the GOC.

A1.40 The table below illustrate the number of complaints received by the GOC over the past four years.



Figure A1: Number of Complaints Received by the GOC 2005 - 2009



Source: GOC Annual Reports

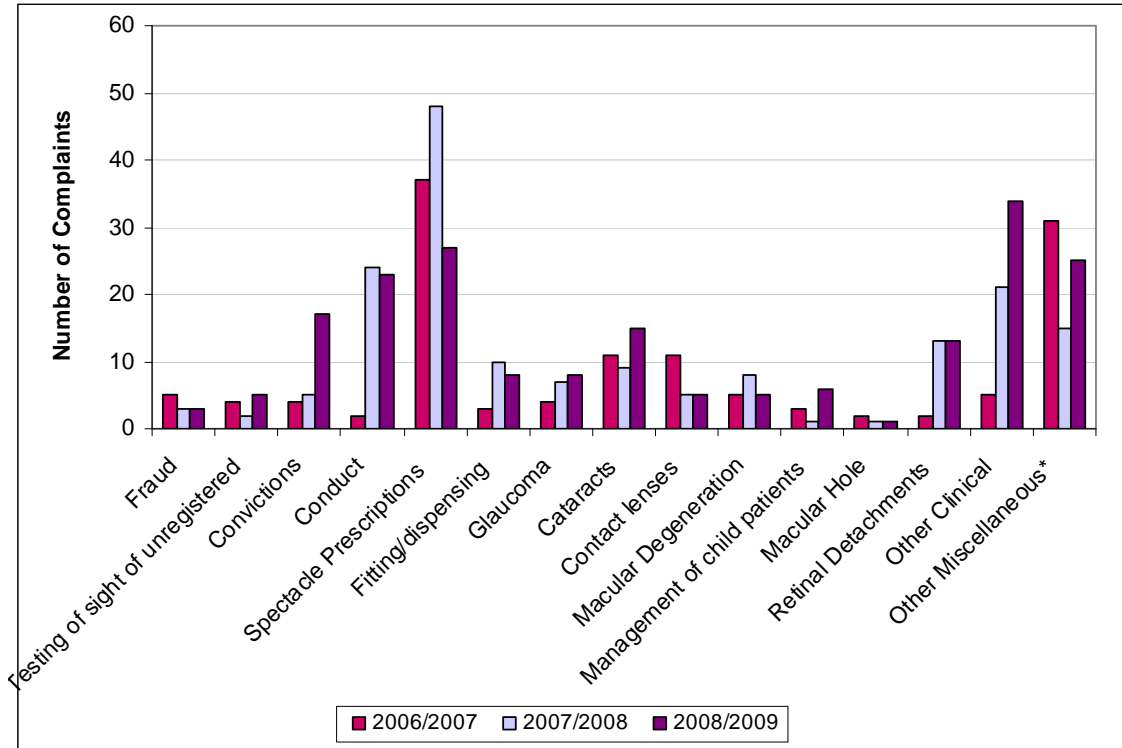
A1.41 In 2008/2009 the total number of complaints received by the GOC was 150, and concerned 195 individuals or businesses. This amounts to 0.8 per cent of the current register base.¹⁰⁰ Of the 190 outcomes, 44 per cent were either withdrawn or subject to no further action. Sixty six (34 per cent) remain under investigation, and 31 (16 per cent) have been referred to the Fitness to Practise Committee.

A1.42 Below is a chart illustrating the outcomes of complaints for the past four years.

¹⁰⁰ Register base at 11/08/2009 was 23,319



Figure A2: Outcomes of Complaints 2005 – 2009



Source: GOC Annual Reports

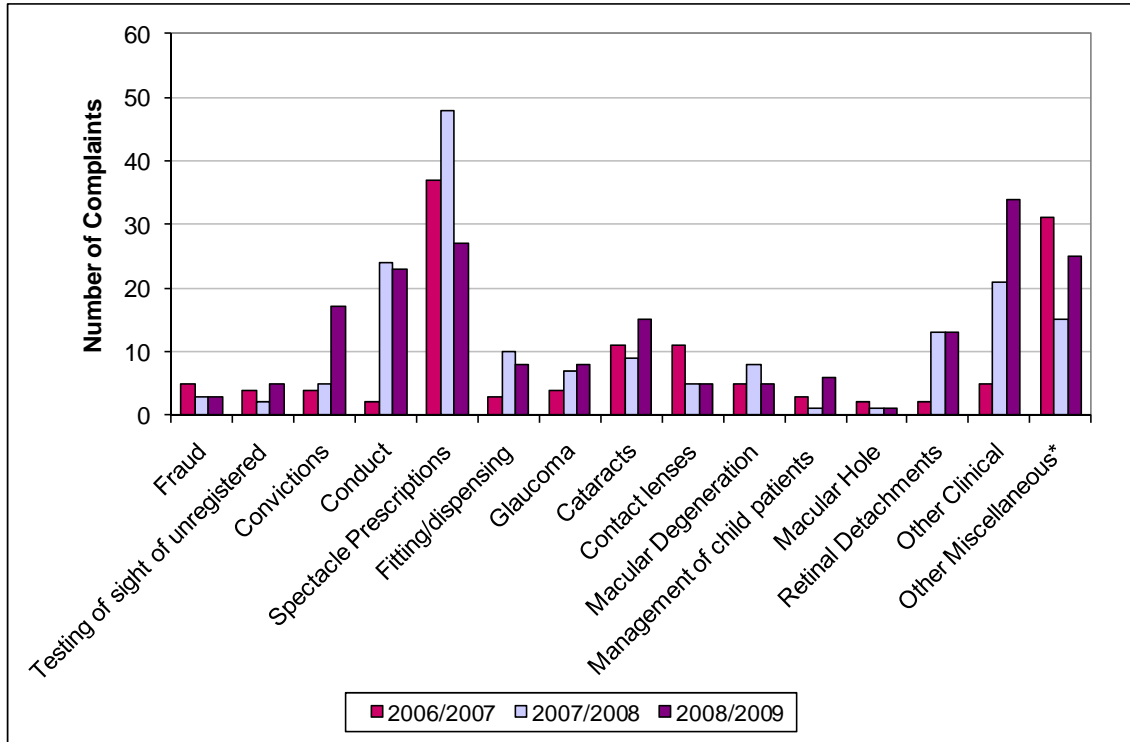
A1.43 After complaints labelled as ‘other clinical’¹⁰¹ which amounted to 17 per cent of the reasons for complaints, the majority of complaints (13 per cent) related to spectacle prescriptions. This could tie in with the paper by Freeman and Evans about non-tolerance, and could be a subject for revalidation. The next most common single reason for complaint was conduct (11 per cent).

A1.44 The chart below presents the breakdown of complaints over the past four years.

¹⁰¹ These include complaints involving multiple clinical issues, such as cataracts and spectacle prescriptions



Table A3: Reasons for Complaints 2005 - 2009



* For 2006/2007, includes among others, Advertising and Ocular Melanoma. For 2008/2009, includes among others, Ill-Health and Supervision of Students

Source: GOC Annual Reports

Using this data

A1.45 As mentioned in the report, it is not possible to use complaints data to accurately assess the scale of risk in the optical profession. This is because:

- (a) The data only relate to complaints lodged with the GOC, and as such may miss out cases handled independently of the GOC by the professional bodies.
- (b) The data may also miss out incidents of clinical malpractice or incompetence that were not noticed by the patient (the vast majority of complaints come from patients, compared to employers, PCTs or the College of Optometrists).
- (c) Descriptions of complaints received are not available, and therefore it is not possible to assess the real risk behind them (for example, a complaint labelled 'glaucoma' could relate to anything from a misdiagnosis to merely a breakdown in communication).
- (d) The data are not disaggregated by type of practitioner (e.g. locum; domiciliary provider) or type of employment (e.g. large multiple; independent practice) and therefore any analysis of contextual factors is not possible.



Fitness to Practise Hearings

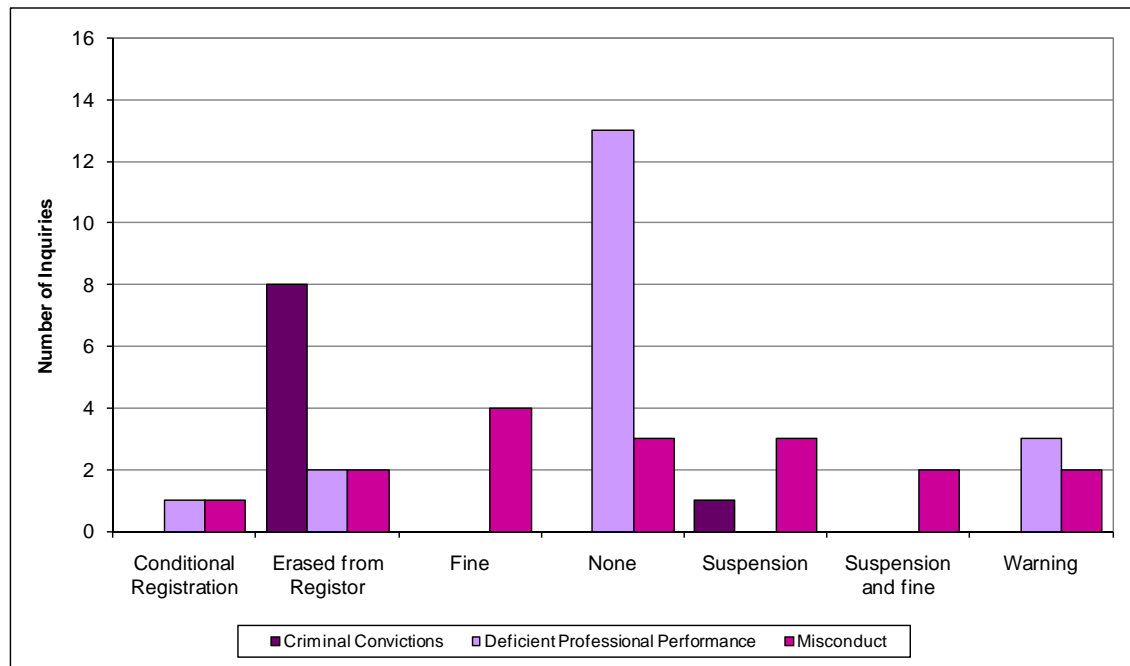
A1.46 Results of fitness to practise hearings may be more useful, as these represent complaints that were deemed serious enough by the GOC’s Investigating Committee to pursue through a formal hearing.

A1.47 The publically available hearings and decisions for GOC fitness to practise cases were analysed for two and a half years since 2007. There were 47 new inquiries, out of which 20 have been classified as deficient professional performance and 27 classified as misconduct, criminal conviction or unregistered practice. As the focus of this risk assessment is on practitioner competence, the relevant cases will be those classified as deficient professional performance. To avoid double-counting we only analysed new inquiries, as restorations and reviews reported in one year could reflect an inquiry raised in a previous year. Interim orders were all concerned with conduct issues, and therefore were also not included in the analysis.

A1.48 Of the deficient professional performances, the majority (13) received no sanction. Three were given a warning, three erased from the register, and one received a conditional warning. The sanctions seemed to depend less on the actual type of incompetence, and more on whether it represented a sustained failure of professional conduct or just a temporary lapse that was subsequently corrected.

A1.49 The chart below shows the outcomes for all inquiry charges.

Figure A4: Outcomes of Inquiry Cases 2007 – 2009



Source: GOC public hearings reports and EE analysis



A1.50 The cases that did receive sanction (seven) comprised of the following complaints:

- (a) Inadequate examination records
- (b) Failure to refer patient to ophthalmological opinion
- (c) Failure to conduct certain tests (mainly for glaucoma)
- (d) Tests carried out incorrectly
- (e) Lack of appropriate equipment for glaucoma testing
- (f) Failure to conduct mandatory ophthalmoscopy
- (g) There were no omitted tests etc. for retinal detachment – the main disease was glaucoma.

A1.51 Of the cases that received no sanction, many of the complaints were not proven. The content of the complaints were similar to those resulting in sanction, with the majority concerning glaucoma tests not undertaken.

A1.52 The attached spreadsheet contains the full information from the hearings reports, available for further analysis should it be desired.

Optical Consumer Complaints Service

A1.53 The Optical Consumer Complaints Service (OCCS) receives complaints about opticians and optical practices. Their main role is to mediate between consumers and opticians, to clarify misunderstandings and seek solutions. The complaints are largely of a commercial nature, and when appropriate the OCCS refers cases to the GOC.

A1.54 Analysis of OCCS complaints did not highlight any real risk areas. We describe briefly the main types of complaints and include relevant comments from the OCCS.

Cataracts

A1.55 A large number of complaints come under the 'cataracts' category. Sometimes patients with cataracts are dispensed glasses, and then require a new prescription a short time after due to deterioration in their sight or a cataract operation. Many of these patients claim they were not told of a cataract, which could potentially point to a misdiagnosis on the part of the optometrist.

A1.56 However, in most of the cases, further investigation found there to be no problem of misdiagnosis. The majority of people over 70 have some form of cataract; in many of



these cases the eyesight is not affected and it can cause unnecessary anxiety if the patient is told. However, the OCCS feels that patients do have a right to be told as much as possible about their eye conditions (in a way that avoids alarm).¹⁰² If vision is reduced and the optometrist feels that prescribing spectacles will have some benefit, then he will do so. However, patients should be made aware of the possibility of needing an operation some time in the future, and the extent to which their prescription will be temporary.

Communication

A1.57 In many of the complaints a lack of communication appeared to be the main issue. In addition to optometrists not informing about non-serious cataracts, complaints were also received about multi-focal lenses. In these cases the patient had difficulty in adapting to the new lenses, and this was often because there had been insufficient attention by the optician to explaining the wearing of such lenses, especially taking into account the patient's own lifestyle. Investigation into other clinical risks has also shown the importance of communication.

Indemnity Insurance

A1.58 Indemnity insurance is a prerequisite for registering with the GOC. Professional bodies, such as FODO, AOP and ABDO, arrange indemnity insurance for their members. Information relating to this, such as statistics on claims and whether insurance companies undertake risk profiling, was investigated to see if it would shed further light on risk areas in optics.

A1.59 Insurance companies do not undertake individual risk profiling, and premiums are set based on claims frequencies of each professional body. No particular risk areas are included in risk profiling, and all the general core competencies required by the GOC are insured against equally. Optometrists with particular areas of speciality will be insured for those areas in addition to the baseline. The insurance of new fields of practice, as and when they arise, is discussed between the insurers and the professional bodies.

A1.60 Specific data relating to the number and nature of insurance claims are confidential, and will not be quoted here. More general information from FODO shows that the annual number of claims has fallen each year since 1998, and in 2006/2007 were less than 20 per cent of the number of complaints received by the GOC. In terms of the nature of the claims, the main categories were similar to GOC-received complaints, and no new areas of particular risk were highlighted.¹⁰³

¹⁰² Opinion on this issue differs across the optical profession, with the College of Optometrists, for example, supporting the discretion of the optometrists with regard to informing the patient. Any evidence of cataract must be noted in the patient records, however, regardless of what is communicated.

¹⁰³ FODO membership accounts for over 75 per cent of the market by volume and over two thirds of all sight tests – more than 19.5 million tests per year and growing year-on-year. Thus any claims information represents a large proportion of the professions. By any standards, the number of claims compared with the membership volume and patient interactions is very low.



- A1.61 Further exploration of the claims is required to fully assess the degree of practitioner risk. Just like complaints lodged with the GOC, claims made by patients may not always involve fault on the part of the practitioner or company. In some cases claims are settled to avoid legal fees, without any proven or accepted liability. Claims also involve retail issues as well as clinical ones (such as a patient using incorrect contact lens solution) or events that are influenced in some way by the patient (such as poor contact lens hygiene).
- A1.62 The professional bodies have different standards of confidentiality, and more detailed analysis of claims to assist in the risk assessment of the professions may in some cases be provided (such as offered by FODO) upon formal request by the GOC.

Primary Care Trusts

- A1.63 Another source of evidence on risks is from PCTs who receive complaints about NHS contracted practitioners. As mentioned previously, collecting data on all complaints across the country is not possible at present, but anecdotal evidence from a optometric advisor to a number of PCTs suggests that complaints that have a basis on a competency failure on the part of the practitioner are very rare. Two such complaints that occurred over the past few years were related to detached retina that had been identified by a doctor a short time after the patient visited an optometrist. In these cases it is very difficult to conclude that the optometrist 'missed' a diagnosis, as retinal detachments can occur very suddenly, and early or pre-detachment is very difficult to see. Recording patient symptoms and history is particularly important here, and this has been an area recommended for further CET.

Other Countries

- A1.64 The Optometry Council of Australia and New Zealand (OCANZ) is the educational body for the optical profession. It assesses overseas optometry qualifications and conducts a competency-based examination for international optometrists. It also assesses, for the purposes of accreditation, the Australian and New Zealand optometry courses.
- A1.65 There are eight optometrists registration boards in Australia,¹⁰⁴ and one in New Zealand (the Optometrists and Dispensing Opticians' Board).
- A1.66 In New Zealand there are 1,029 registrants with the Optometrists and Dispensing Opticians' Board. The Board received one formal complaint against an optometrist in 2007/08.¹⁰⁵ In New Zealand all complaints are first lodged with the Health and Disability

¹⁰⁴ Australian Capital Territory, Northern Territory, New South Wales, Queensland, South Australia, Tasmania, Victoria, Western Australia

¹⁰⁵ Optometrists and Dispensing Opticians Board Annual Report 2008.2009 <http://www.dispensingopticiansboard.org.nz/default.aspx>;
http://www.dispensingopticiansboard.org.nz/Site/publications/hdc_complaint_report.aspx



Commissioner, who will then refer any formal complaints to the Board for further investigation.

A1.67 Complaints are lodged with the boards and the Health Care Complaints Commission (HCCC). Complaints levels were again very low, with not all boards receiving complaints in 2008/09 or 2007/08. A small number of complaints were received by boards in 2007/08 and the HCCC. Seven were received by the New South Wales board in 2007/08, all relating to either dissatisfaction with the optical appliances prescribes, or professional misconduct (one)).¹⁰⁶ Ten were received by the South Australia Board in 2008/09, with only one relevant to conduct or competence (the possible mishandling of a patient with respect to the timeframe to see an ophthalmologist).¹⁰⁷ The Optometry Registration Board of Victoria received four complaints in 2008/09, two of which were dismissed and one referred for further investigation. There were no complaints relating to therapeutics.¹⁰⁸

A1.68 Given the very small number and nature of complaints received in New Zealand and Australia, this area of research did not highlight any new risk areas in the optical profession.

Stakeholders

A1.69 We list here the academic and other optometric experts we spoke to, as well as the professional and educational bodies. The particular areas of expertise of participants, where relevant, are included in parentheses.

Individuals

- (a) Dr Adrian Jennings — Optometric advisor to the GOC.
- (b) Dr Bruce Evans — Director of Research, Institute of Optometry; Visiting Professor, Dept of Optometry & Visual Science, City University, London; Visiting Professor of Optometry, Faculty of Health & Social Care, London South Bank University
- (c) Derek Busby — Department of Health Eye Care Services (Directorate of Commissioning and System Management Dental & Eye Care Services Division)
- (d) Richard Smith — The Royal College of Ophthalmologists (Vice President and Chairman of Professional Standards)

¹⁰⁶ New South Wales Optometrists Registration Board Annual Report 2007/08
http://www.optomreg.health.nsw.gov.au/hprb/optom_web/pdf/annualreport08.pdf

¹⁰⁷ Optometry Board of South Australia Annual Report 2009
http://www.optomsboardsa.com.au/uploadFiles/documents/2009_annual_report.pdf

¹⁰⁸ Optometry Registration Board of Victoria Annual Report 2009
http://www.optombboard.vic.gov.au/cmsdocs/Annual_Report_2008.pdf



(e) Rosalyn Hayles — GOC Fitness to Practise Director

Organisations

(a) Association of Optometrists

- Bob Hughes (CEO)
- Karen Sparrow (Educational Advisor)

(b) Association of British Dispensing Opticians

- Sir Tony Garret (General Secretary)

(c) College of Optometry

- Sue Blakeney (Optometric Advisor and Advisor to PCTs)
- Jo Mullin (Director of Education)

(d) Federation of Ophthalmic and Dispensing Opticians

- David Hewlett (Chief Executive)
- Michael Bateman (Optometrists and previous practice-owner)
- Dawn Roberts (Optometrists; PCT advisor; Domiciliary Care: Clinical Director Healthcall)
- Glenn Tomison (Dispensing Optician; Domiciliary care: Director of Business of Healthcall)

(e) Optical Consumer Complaints Service

- Richard Wilshin (OCCS Administrator)

(f) The Outside Clinic

- Damian Kenning (Optician);
- Nick Wingate (Optometrist; Head of Professional Services)

(g) Optometry Wales

- Nick Sheen

(h) Optometry Scotland

- Frank Munro Optometrist (OS Past Chair)
- Kevin Wallace (Optometric Adviser Edinburgh)
- Maggie Darroch (IP qualified optometrist)
- Neil Leslie (Chair Scottish Committee of Optometrists)
- Julia Hunter (Optometric Adviser Lanarkshire)
- Ross Henderson (Chair Professional Development OS)
- Peter Carson (Vice Chair OS / Optometric Adviser Ayrshire & Arran)
- Charles McKinnon (Optometric Adviser – Fife)
- Matt Stewart (Edinburgh AOC)
- Eddie McVey (Glasgow OA)
- Alan Tomlinson (Glasgow Caledonian University)

Appendix 1: Additional Information



- Norman Button (Glasgow Caledonian University)
- Niall Strang (Glasgow Caledonian University)
- Barry Duncan (President ABDO)



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College of Optometrists

Department of Health Eye Care

Federation of Ophthalmic and Dispensing Opticians

General Optical Council

New Zealand Optometry Board

Optical Consumer Complaints Service

Optometry Scotland

Optometry Wales

Royal College of Ophthalmologists

Royal National Institute of Blind People

United States Optometry Registration Boards