



OPTOMETRISTS  
AND DISPENSING  
OPTICIANS BOARD

Te Poari o ngā Kaimātai Whatu me ngā Kaiwahakarato Mōhiti

# OPHTHALMIC LASER SURGERIES GUIDELINES FOR NEW ZEALAND OPTOMETRISTS

May 2022

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# 1. INTRODUCTION

An optometrist registered in the Specialist optometrist scope of practice – Ophthalmic laser surgeries (the Specialist optometrist) is authorised to perform specified ophthalmic surgical procedures below the mucous membrane or surface of the skin. Specifically, they are authorised to perform:

- a. neodymium:yttrium-aluminum-garnet (Nd:YAG) laser capsulotomy; and/or
- b. neodymium:yttrium-aluminum-garnet (Nd:YAG) laser peripheral iridotomy.

The main goal of optometrists performing ophthalmic laser surgeries is to assist in relieving the burden on the health system of patients waiting to receive these surgeries, which are currently carried out by ophthalmologists and nurses. By freeing ophthalmologists for more complicated procedures, this has the effect of reducing overall waiting times for all ophthalmic procedures, improving treatment efficiency, and therefore reducing unnecessary impairment of vision. The patient experience is also improved, as the same person who initially diagnoses the condition can undertake the treatment, often at the same visit. This improves the level of patient rapport and increases surgical satisfaction. In addition, it supports the key focus areas of the 2020 Health Reform – to increase primary health care in the community.

In the management of any patient, the Board expects that the optometrist will always act:

- in the best interests of the patient;
- in collaboration with the supervising ophthalmologist;
- in close contact with the patient's other health practitioners;
- to the current best practice, evidence-based medical standards;
- within the optometrist's training and experience; and
- in the performance of laser surgeries, within these guidelines and the boundaries of their scope of practice.

Practitioners are reminded of their obligations regarding informed consent. Patients under their care should be made aware of all options regarding their ophthalmic laser surgery.

The practice of optometry within the Specialist optometrist scope of practice includes:

- a. the practice of optometry, as described in the Optometrist scope of practice, that includes:
  1. prescribing any ophthalmic appliance, optical appliance, or ophthalmic medical device intended for remedial or cosmetic purposes or for the correction of a defect of sight (a restricted activity under section 9 of the Health Practitioners Competence Assurance Act of 2003 (HPCA Act));
  2. assessing, diagnosing, treating and managing conditions affecting the eye and its appendages;
  3. prescribing medicines whose sale and supply are restricted by law to prescription by authorised prescribers;
  4. reporting or giving advice in an ophthalmic capacity, using the knowledge, skills, attitudes and competence initially attained for the primary optometry qualification and built upon in postgraduate and continuing clinical education, wherever there could be an issue of patient health or wellbeing;
  5. signing any certificate required for statutory purposes, such as driver licensing eyesight certificates; and

holding out to the public, or representing in any manner that one is authorised to practise optometry in Aotearoa New Zealand. **AND**

- b. surgical or operative procedures, specifically for optometrist, and the performance of specified ophthalmic laser surgeries (a restricted activity under section 9 of the HPCA Act<sup>1</sup>).

## 2. GUIDELINES

### 2.1 Pre-requisites

Before undertaking any independent ophthalmic laser surgeries, an optometrist must satisfy both the following:

- The practitioner must hold registration in the Optometrist scope of practice and not be subject to any conditions; and
- The optometrist must have worked in a hospital ophthalmology department for a minimum of three years with at least 400 hours in a relevant clinic (detailed in Section 2.2.2).

### 2.2 The training programme

#### 2.2.1 Application to begin training

Should an optometrist meet the pre-requisites set out in Section 2.1, and wish to commence with the training programme of the prescribed qualification, they must submit an *Application for approval to begin training for a specified laser surgery* (Appendix 1) for Board approval.

This will provide the Board the necessary proof of eligibility to undertake training.

#### 2.2.2 Board-approved types of clinics suitable for training

The Board approved the following types of clinics that would be suitable for training:

- YAG capsulotomy: any slit lamp-based in-person clinic, such as for anterior segment, uveitis, medical retina, surgical retina, glaucoma, acutes; and/or
- YAG laser peripheral iridotomy (LPI): clinics treating glaucoma, and acutes related to glaucoma.

Any other clinical setting will need Board-approval.

#### 2.2.3 The structure of the training programme

Board-approved surgical procedures have a four-step graduated training process. This begins with theory-based components, before observational then supervised skills-based practical components, before ongoing competency assurance requirements. Together, the process has an acronym DOSE, whose steps include:

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<sup>1</sup> Ministry of Health (2014) Restricted activities under the Act. Available at: <https://www.health.govt.nz/our-work/regulation-health-and-disability-system/health-practitioners-competence-assurance-act/restricted-activities-under-act>

- **Declaring competence in pre-training requirements and obtaining the theoretical and procedural aspects of the surgery:**  
The optometrist has demonstrated their understanding and comprehensive knowledge in the specified areas of competence for the safe delivery of ophthalmic laser surgeries published on the Board’s website (Registration pathway 6 – “Specialist optometrist – Ophthalmic laser surgeries”) to the satisfaction of their supervising ophthalmologist; **then**
- **Observing the surgery being performed:**  
The optometrist has satisfactorily **observed** the minimum required number of surgeries being performed by their supervising ophthalmologist published on the Board’s website (Registration pathway 6 – “Specialist optometrist – Ophthalmic laser surgeries”), attested to by their supervising ophthalmologist; **then**
- **Supervised surgery:**  
The optometrist has **satisfactorily and independently** performed the required number of surgeries **under the supervision of their supervising ophthalmologist** published on the Board’s website (Registration pathway 6 – “Specialist optometrist – Ophthalmic laser surgeries”), attested to by their supervising ophthalmologist; **then**
- **Ensuring ongoing competence in annual audits:**  
The optometrist must provide the Board with a patient log (Appendix 3) to meet the on-going audit requirements as well as complete an annual continuing competency declaration for ophthalmic laser surgeries (see the guidelines for “Recertification” for further information).

To ensure adequate management of risk during the training process, DOSE must be completed in sequence, with checkpoints along the way requiring approval from the Board to proceed (Figure 1). These steps affirm that the training, observations, and supervised surgeries that an optometrist has undertaken have led to the level of competence needed for the optometrist to independently undertake the specific ophthalmic surgeries.

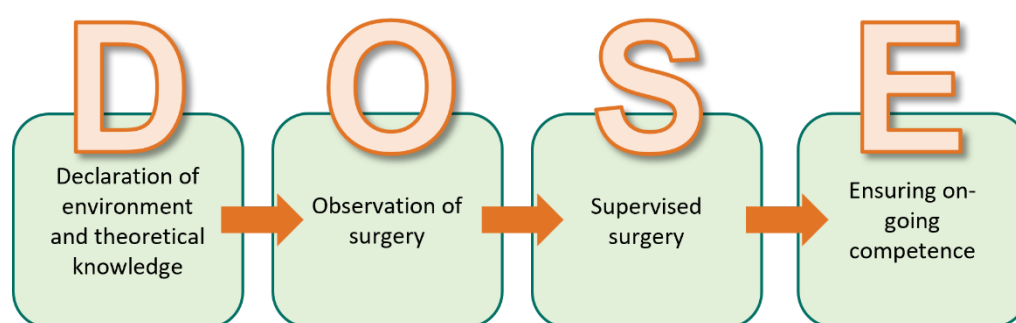


Figure 1 - The DOSE protocol for training an optometrist in ophthalmic laser surgeries.

## 2.2.4 Training process for surgeries

The detailed requirements for each specific laser surgery can be found in the supporting documents listed in Section 2.2.5, but this section gives an overview of the process for a single procedure.

As part of declaring competence, and after receiving approval from the Board to begin training (Section 2.2.1) *Application for training (LAS1)*, Appendix 1), the optometrist is required to complete the theory-based learning requirements first.

To achieve this, the optometrist must have demonstrated their **knowledge and understanding** (which includes a Board-approved laser course) in the following specified areas of competence for the safe delivery of ophthalmic laser surgeries. To meet these criteria, the Optometrist must have:

- a. comprehensive knowledge of the relevant anatomy and physiology of the eye and adnexa.
- b. knowledge of the physics of light and laser, and the penetration of light through ocular tissues.
- c. an understanding of the interaction of light and living tissue including thermal effects, photocoagulative effects, photoablative effects and photodisruptive effects.
- d. knowledge of the wavelengths and powers utilised in ophthalmic lasers for the specific surgery.
- e. knowledge of required sterile techniques for performing laser surgery.
- f. knowledge of surgical procedure and specialised equipment.
- g. knowledge of the risks and benefits for each surgery.
- h. knowledge of appropriate management plans for adverse outcomes.

Once all learning outcomes are met, the optometrist is required to submit the *Declaration for required learning* (Appendix 2) for Board approval.

Once approval has been received, the optometrist can then proceed with the skills-based practical component.

To meet the **skills-based practical component**, the optometrist must complete a series of practical skills, in order, to the satisfaction of their supervising ophthalmologist.

The Optometrists must have:

- a. first demonstrated competence in the theoretical and procedural aspects of performing the specified lasers surgery in a mock environment, to the satisfaction of their nominated ophthalmologist
- b. satisfactorily **observed a minimum of 20** Nd:YAG capsulotomies and/or Nd:YAG laser periphery iridotomies (as applies) being performed by their supervising ophthalmologist, attested to by their supervising ophthalmologist;
- c. satisfactorily and independently **performed a minimum of 20** Nd:YAG capsulotomies and/or 10 Nd:YAG laser periphery iridotomies (as applies) under the supervision of their supervising ophthalmologist, attested to by their supervising ophthalmologist.

To meet the requirements of this phase, the optometrist will be required to submit the following documents to the Board for approval:

- a. Laser surgery logbook (Appendix 3), and
- b. Laser surgery declaration (Appendix 4).

Once the Board approves the above stages of the training programme, the optometrist is now allowed to perform the surgery independently to meet the remaining skills-based practical component of the training programme. This requires the submission of the following documents to the Board for approval:

- a. Updated Laser surgery logbook (Appendix 3), and the
- b. Final supervisor sign-off and declaration form (Appendix 5).

Satisfactory completion of the training programme will result in a Board outcome letter stating that the optometrist has met the requirements of the training programme and may apply for registration in the additional scope, the Specialist optometrist scope of practice – Ophthalmic laser surgeries (Registration pathway 6).

### **2.2.5 Supporting documents - Authorised procedures and their specific requirements**

These documents are relevant for the specified authorised procedures and are only relevant for the procedures in which the optometrist wishes to be approved to practice under the Specialist optometrist scope of practice.

- *Requirements for Nd:YAG laser capsulotomy* (Appendix 6)
- *Requirements for Nd:YAG laser peripheral iridotomy* (Appendix 7).

## **2.3 Registration**

### **2.3.1 The process leading up to registration**

There are multiple contact points with the Board as part of the training process. Before beginning training, the optometrist is required to apply for approval from the Board. During training, there are multiple steps through the DOSE pathway which require Board approval before proceeding.

By successfully completing the training programme, the optometrist will meet the requirements to enable them to apply for registration in the Specialist optometrist scope of practice – Ophthalmic laser surgeries (Registration pathway 6).

The diagram below is a visual representation of the process. The orange arrows indicate which steps of the process require approval of a submission to the Board before proceeding to the next step. This has been further explained by the text in the orange blocks. The number in parenthesis indicates the required form to be submitted to the Board from the appendices attached.

## 2.3.2 Applying for the Scope of Practice

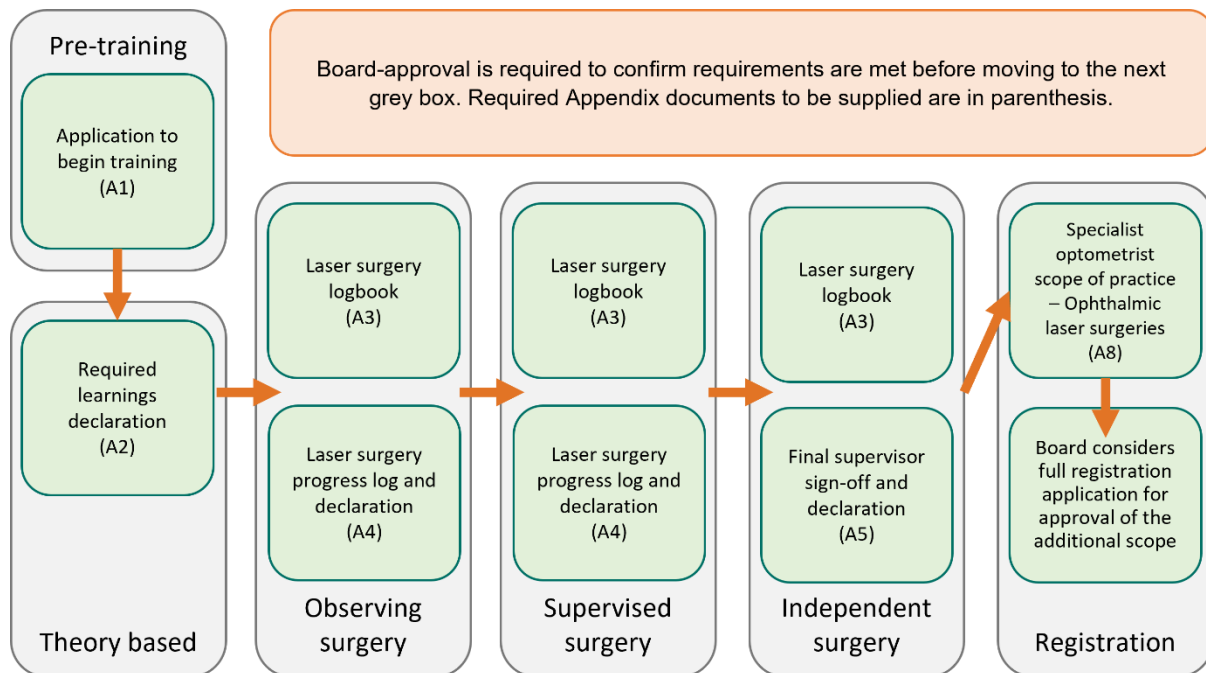


Figure 2 - The process from initial application to the approval of the Specialist optometrist scope of practice. Board approval is required before moving between each grey box – e.g. the Board must approve both the Laser Surgery logbook (Appendix 3) and the Laser surgery progress log and declaration (Appendix 4) before the optometrist can move to Independent surgery. The numbers in parenthesis indicate the associated appendices that are required to be submitted at each stage of the process.

Should an optometrist meet the registration requirements, they must complete the application for registration in the *Specialist optometrist scope of practice – Ophthalmic laser surgeries* (REG5, Appendix 8). This application takes 20 working days to be processed.

As the optometrist will already have an annual practising certificate (APC) in the Optometrist scope of practice, this will be reissued with both scopes of practices on and will include the Specialist optometrist scope of practice – Ophthalmic laser surgeries. In other words, once the registration application has been approved, one APC will be issued with both scopes listed.

The REG5 form can be downloaded from the Board's website (<https://www.odob.health.nz/i-want-to-register/register-as-an-optometrist/>).

The Board approves all registrations and APCs. If approved, the additional scope will be listed on the optometrist's APC and in the Register of Optometrists.



### 2.3.3 Costs

The application for change in scope of practice/ <b>an additional scope of practice</b> , where the application is received by the Board <b>within one year</b> of the date the relevant qualification was conferred	\$153.00
The application for change in scope of practice/ <b>an additional scope of practice</b> , where the application is received by the Board <b>more than one year</b> after the date the relevant qualification was conferred	\$368.00

The registration application will be referred to the Board's Registration Committee for review and approval. If approved, and assuming the optometrist already has an APC, their APC will be reissued with the additional scope of practice. No additional cost will be required.

The Board's Gazetted fees are available on the Board's website (<https://www.odob.health.nz/wp-content/uploads/2020/02/Fees-Gazette-2020.pdf>).

## 2.4 Recertification

### 2.4.1 Recertification requirements

Once approved and practicing within the Specialist optometrist scope of practice, the final step of the DOSE procedure places additional requirements for ensuring ongoing competency to ensure practice within the expanded Specialist optometrist scope of practice is kept up to date and performed at a high level of competency. Please note that these requirements are in addition to the competency requirements required as part of the Optometrist scope of practice, such as gaining sufficient continuing professional development (CPD) points and completing random self-audits as required. It is the optometrist's responsibility to ensure that they meet the on-going competency requirements for both the Optometrist scope of practice as well as the additional requirements relevant to the Specialist optometrist scope of practice, which are **in addition** and **annual**.

The additional requirements while practice within the Specialist optometrist scope of practice are:

- maintaining a collegial relationship with a registered ophthalmologist working at the Board-approved location where they are performing the laser surgery; **and**
- maintaining competence in laser safety by completing a Board-approved laser safety course every two years. (The Board has a list of accredited providers); **and**
- submitting to the Board *Annual continuing competency declaration for Ophthalmic Laser Surgeries* (Appendix 9) for each year that surgeries have been performed.

### 2.4.2 Annual competency declarations

Every year before or on the 31<sup>st</sup> of October of each year, the Specialist optometrist must submit to the Board a completed *Annual continuing competency declaration for Ophthalmic Laser Surgeries* (Appendix 6). This declaration includes the following information:

- The procedures for which the declaration pertains.
- A reflective statement on how newly acquired learnings have influenced practice;
- An opportunity to register any change to employment and/or supervisor details;
- Affirmation that they continue to meet the requirements for performing the specified laser surgery;
- The submission of a *Continuing competency plan* (Appendix 10).

- The submission of a *Laser surgery logbook* (Appendix 3) showing they have performed a minimum of 20 procedures per annum for each approved procedure.

An optometrist may register at any time for this scope of practice and its recertification requirements will be calculated accordingly.

### 2.4.3 Recertification cycle

Unlike the regular Optometrist scope of practice, which has a two-year recertification cycle, the recertification cycle for the Specialist optometrist scope of practice is annual. This reflects the higher level of risk involved within this expanded scope of practice, which therefore requires a higher level of Board oversight for ensuring competency and public safety.

Both Optometrist and Specialist optometrist cycles end on 31<sup>st</sup> October. However, the Specialist optometrist recertification process must be completed each year. Consideration also needs to be made for planning continuing education and professional development activities throughout the annual recertification cycle. To help facilitate this, a *Continuing competency plan* (Appendix 10), detailing which events or activities are planned for the upcoming year, is required to be submitted each year as part of the Annual competency declaration.

### 2.4.4 Non-compliance

It is the practitioner’s responsibility to ensure they have the means to achieve the annual obligations.

If at any stage they are continuously unable to meet these obligations, the Board may consider altering their scope of practice by changing any health services that they are permitted to perform or by including any condition or conditions that the Board considers appropriate. The Board may also consider suspending their registration for the Specialist optometrist scope of practice – Ophthalmic laser surgeries.

It is therefore important to remain committed to achieving the annual requirements, and where issues arise, these should be discussed with the Board at the earliest possible opportunity.

## 3. APPENDICES

The list of appendices below:

Appendix 1	Application for approval to begin training for a specified laser surgery (LAS1)
Appendix 2	Declaration of required learning (LAS2)
Appendix 3	Laser surgery logbook (“Cases logbook”) (LAS3)
Appendix 4	Laser surgery progress log and declaration (“Progress log”) (LAS4)
Appendix 5	Final supervisor sign-off and declaration (LAS5)
Appendix 6	Requirements for Nd:YAG laser capsulotomy
Appendix 7	Requirements for Nd:YAG laser peripheral iridotomy
Appendix 8	Application for an additional scope: Specialist Optometrist (REG6)
Appendix 9	Annual continuing competency declaration for Ophthalmic Laser Surgeries (“Continuing competency declaration and plan”) (LAS6)
Appendix 10	Continuing competence plan (LAS7)

**Acknowledgements:**

The Board wishes to thank all those involved for their contributions to developing the Specialist optometrist scope of practice, the prescribed qualification, and their participation in the pilot study.

**Revision history**

Version 1	Drafted	Approved by the Board	May 2022

Code:  
LAS1

## Application for approval to begin training for a specified laser surgery

### Instructions

Please read the *Ophthalmic Laser Surgeries – Guidelines for New Zealand Optometrists* prior to completing this form. Please answer every question. Incomplete applications will be returned to the applicant. Please allow for 20 working days for the Board to process.

## Section 1: Personal and Contact Details

I wish to apply for approval to begin training for a/ the following specified laser surgeries:

Please tick:  Nd:YAG Capsulotomy  
 Nd:YAG Peripheral Iridotomy

Title (*circle*): Dr/Mr/Miss/Mrs/Ms/Mx First/other names: .....

Family name/surname: .....

Previous names (*if any*) you have used: ..... Date changed: .....  
 (*please attach original or certified copy evidence of previous name(s)*)

Ethnicity: .....

Date of birth: day/month/year...../...../.....

Postal address ( <i>this will not be published</i> )	Work address if different from postal address ( <i>this will be part of the public register unless you provide a written objection</i> ):	Residential address ( <i>this will not be published</i> )
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
Postcode: .....	Postcode: .....	Postcode: .....

Work phone: ..... Cell phone: ..... Other phone: .....

Primary email contact..... (*for important Board e-communications*)

## Section 2: Employment and Supervisor Details

### Employment details (Hospital Ophthalmology Department/Clinic)

Name of place of employment: .....

Address: (*if different from above*) .....

..... Postcode:.....

Applicant's start date: day/month/year...../...../.....

Typical weekly hours at this place of employment (department/clinic): .....

The Board approved the following types of clinics that would be suitable for training.

- YAG capsulotomy: any slit lamp-based in-person clinic: Anterior segment, uveitis, medical retina, surgical retina, glaucoma, acutes; and/or
- YAG laser peripheral iridotomy (LPI): Glaucoma, and acutes related to glaucoma.







Code:  
LAS2

## DECLARATION OF REQUIRED LEARNING

### Personal details

Title (*circle*): Dr/Mr/Miss/Mrs/Ms/Mx First/other names: ..... Family name/surname:.....

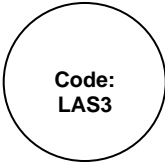
Learning Outcomes	Sources (papers, textbooks, conferences, lectures)	Date(s) obtained
1. The practitioner must have comprehensive knowledge of the relevant anatomy and physiology of the eye and adnexa.		
2. The practitioner must have knowledge of the physics of light and laser, and the penetration of light through ocular tissues.		
3. The practitioner must have an understanding of the interaction of light and living tissue.		
4. The practitioner must have knowledge of the wavelengths and powers utilised in ophthalmic lasers for the specific procedure		
5. The practitioner must have knowledge of required sterile techniques for performing laser surgery.		
6. The practitioner must have knowledge of the specified surgical procedure and specialised equipment.		
7. The practitioner must have knowledge of the risks and benefits for each procedure.		
8. Successfully completed a Board-approved laser surgery course.		

### Declaration

I (*full name*) ..... declare that I have undertaken the above learnings relevant to the specific laser surgery.

.....  
Signature

.....  
Date



# LASER SURGERY LOGBOOK

**Optometrist details**

Laser Surgery..... Observed/ Supervised/ Independent Surgery<sup>1</sup> (circle)

Title (circle): Dr/Mr/Miss/Mrs/Ms/Mx    First/other names: .....    Family name/surname:.....

Date	Patient details	Laser surgery notes and outcomes

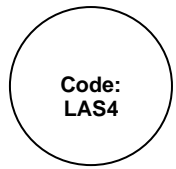
**Nominated Ophthalmologist details**

Title (circle): Dr/Mr/Miss/Mrs/Ms/Mx    First/other names: .....    Family name/surname:.....

Signature:.....    Date: (d/m/y) .....

<sup>1</sup> Please note: The signed-off logbook and progress declaration should be submitted and accepted by the Board before the practitioner is allowed to independently perform the surgery.





# LASER SURGERY PROGRESS DECLARATION

### Optometrist details

Title (*circle*): Dr/Mr/Miss/Mrs/Ms/Mx First/other names: .....

Family name/surname:.....

Laser procedure:.....

Observation of surgery

Supervised surgery

Number patients	Date completed	Signed Optometrist	Signed Ophthalmologist

Nominated Ophthalmologist/Supervisor.....

### Comments

.....

.....

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.....

.....

.....

### Declaration

- I, (*full name*) ..... declare that I
- oversaw the training of the named optometrist in the above steps of the training procedure of which I have signed.
  - am satisfied that the named optometrist has the required knowledge and skills to perform this surgical procedure without direct supervision, in their current working environment.

.....  
Ophthalmologist Signature

.....  
Date



**Final declaration**

I, *(full name)* ..... declare that I

- 1. oversaw the training of the named optometrist in the above steps of the training procedure of which I have signed.
- 2. am satisfied that the named optometrist has the required knowledge and skills to perform this surgical procedure without direct supervision, in their current working environment.
- 3. am confident that the named optometrist has successfully met the skills-based practical component of the training programme for the specific procedure that includes having:
  - a. satisfactorily observed a minimum of 20 Nd:YAG capsulotomies and/or Nd:YAG laser periphery iridotomies (as applies) being performed by their supervising ophthalmologist, attested to by their supervising ophthalmologist; and
  - b. satisfactorily and independently performed a minimum of 20 Nd:YAG capsulotomies and/or 10 Nd:YAG laser periphery iridotomies (as applies) under the supervision of their supervising ophthalmologist, attested to by their supervising ophthalmologist.

.....  
Ophthalmologist Supervisor Signature

.....  
Date

## NEODYMIUM-DOPED YTTRIUM ALUMINIUM GARNET (ND:YAG) LASER CAPSULOTOMY

Laser capsulotomy is a treatment for posterior capsular opacity (PCO) that occurs following cataract surgery with intraocular lens implantation. Depending on density and proximity to the visual axis, this opacification can reduce visual acuity, contrast sensitivity, and increase sensitivity to glare.<sup>1</sup> While incident rates are decreasing due to increased understanding and mitigation of risk factors,<sup>2</sup> PCO remains the most frequent complication following cataract surgery.<sup>3</sup> Unlike other surgical complications, the onset of PCO can be delayed by months to years,<sup>4</sup> meaning that the patient is usually discharged from the care of the cataract surgeon. PCO itself presents a low risk of permanent visual morbidity, but since the treatment can be performed in an inpatient setting in front of a slit lamp, delayed treatment leads to unnecessary vision reduction in an older and more vulnerable population. As the procedure adds energy to the eye, particularly at the anterior vitreous face,<sup>5</sup> complications such as retinal detachment, IOL damage, and cystoid macular oedema can occur.<sup>6</sup> Fortunately, complication rates following laser capsulotomy are low, but as the frequency of treatment for PCO is high, this means that a practitioner must always be selective and diligent when performing the surgery.

Prior to performing the procedure in vivo, the optometrist must first demonstrate competence in the theoretical and procedural aspects of performing a capsulotomy, to the satisfaction of their nominated ophthalmologist.

1. A piece of paper with a mock lens capsule drawn on it can be secured to the head rest of the laser unit.
2. The laser power should be titrated in a single spot off the mock visual axis until observing the required photodisruptive effect.
3. Once the power is determined, a mock capsulotomy should be applied using the appropriate power, duration, repetition, etc. This mock capsulotomy should be performed under supervision, until the nominated ophthalmologist has confidence in the optometrist's ability to operate the laser safely.
4. A variety of mock posterior capsular opacification presentations should be presented to ensure an appropriate technique is applied in each case, each to the satisfaction of the nominated ophthalmologist.

5. The nominated ophthalmologist may use this opportunity to relate theoretical knowledge of the procedure and anatomy to the clinical presentations.

Once the required level of knowledge of the theoretical and procedural components of the technique has been obtained to a level deemed satisfactory to the nominated ophthalmologist, the optometrist should directly observe the nominated ophthalmologist perform a **minimum** of 20 capsulotomies to ensure that their knowledge can be applied to real-world examples.

This stage requires completing the *Laser surgery logbook* (Appendix 3) that must be submitted for the Board's approval.

6. These cases should be interactive and probe the optometrist's knowledge and clinical decision making during each case. Note that in considering the patient's best interests, this discussion may take place once the consultation has finished.
7. At a minimum, pre and post treatment binocular views should be obtained on the slit lamp. Ideally, the entire procedure would also be followed through a teaching tube or video capture.
8. Selection of the laser parameters and target areas should be discussed with the optometrist, in addition to cautionary features of the treatment and recognition of potentially difficult cases.
9. Particular attention should be made for cases where higher laser powers may be required, or unique or complex cases which may require consultation or referral to an ophthalmologist.
10. The optometrist is required to keep a record of each case (Appendix 3), including the clinical presentation, laser settings, surgical procedure, and immediate patient outcomes.
11. When twenty cases have been observed, the nominated ophthalmologist must co-sign the logbook with the optometrist to declare that all training has been completed to a standard to which they are satisfied.
12. The nominated ophthalmologist must also sign and date the *Laser surgery declaration* (Appendix 4).
13. Before the optometrist can proceed to perform the procedure themselves, the logbook must be submitted and approved by the Board. This provides an additional opportunity for discussion of any of the cases.

Once the Board has given approval of the *Laser surgery logbook* (Appendix 3) for the observed procedures, the optometrist may proceed to conducting the procedure themselves.

14. Patients must be made aware of the training nature of the procedure and give appropriate consent by signing an Agreement to Treatment (Consent) Forms prior to the practitioner undertaking the laser procedure.

15. The Consent Form should document the title and position of the practitioner being trained and that patients have been made aware that they are in training under direct supervision.
16. Feedback is given to the optometrist either during or immediately after the observed treatment.
17. A detailed log of the cases, including feedback from the nominated ophthalmologist, must be recorded in a *Laser surgery logbook* (Appendix 3) similar the observation logs completed previously.
18. After a **minimum** of 20 directly supervised surgeries, if the nominated ophthalmologist believes that the optometrist can independently, competently, and safely complete the procedure, this logbook should be signed off.
19. Additional questioning, such as more complex 'What-if?' type scenarios can be used to help the nominated ophthalmologist obtain the required level of confidence in the optometrist.
20. The nominated ophthalmologist must also sign and date the *Final supervisor sign-off and declaration form* (Appendix 5).
21. The signed-off *Laser surgery logbook* (Appendix 3) and *Final supervisor sign-off and declaration form* (Appendix 5) should be submitted to the Board (ODOB) and must be accepted by the Board before the practitioner can independently perform the surgery.
22. On-going approval from the Board is contingent on a suitable work environment, a satisfactory nominated ophthalmologist being available, and meeting the auditing requirements set out for continuing competency in each procedure.

## References

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2. Nibourg LM, Gelens E, Kuijter R, Hooymans JMM, van Kooten TG, Koopmans SA. Prevention of posterior capsular opacification. *Exp Eye Res*. 2015. doi:10.1016/j.exer.2015.03.011
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## NEODYMIUM-DOPED YTTRIUM ALUMINIUM GARNET (ND:YAG) LASER PERIPHERAL IRIDOTOMY

Laser peripheral iridotomy is a procedure to create a passage for aqueous humour to flow through the iris. It is typically performed prophylactically in patients with narrow (“occludable”) anterior angles to modestly reduce the risk of angle closure,<sup>1</sup> and well established in the treatment of pupil block during acute angle closure glaucoma, including the treatment of the fellow at-risk eye.<sup>2</sup> The opening of a channel in the peripheral iris permits a more direct route for aqueous humour to from the ciliary body to the trabecular meshwork, which reduces the pressure gradient across the iris, reducing anterior iris bowing and opening the anterior angle.<sup>3</sup> The procedure is not without risk. As the iris is a vascularised tissue, there is risk of bleeding, and with the introduction of energy to the anterior eye, there is also the increased risk of cataract and other inflammatory complications.<sup>4</sup> Appropriate patient selection is vital, as the number of peripheral iridotomies needed to be performed to prevent one angle closure event is approximately 44 (and over 120 to prevent any sight loss),<sup>5</sup> while any adverse outcomes from the procedure may subject the patient to additional, and upon reflection, unnecessary, ophthalmological care and surgery. Careful consideration and discussion with the patient regarding the risks and benefits is essential in all cases.

Prior to performing the procedure in vivo, the optometrist must first demonstrate competence in the theoretical and procedural aspects of performing a peripheral iridotomy, to the satisfaction of their nominated ophthalmologist.

1. A piece of paper with a mock iris drawn on it (to scale) should be secured to the head rest of the laser unit.
2. The laser power should be titrated in a single spot in the periphery of the mock iris, until the required photo-disruptive effect is observed.
3. Once the power is determined, a mock iridotomy should be performed using the appropriate power, duration, repetition, etc. This mock iridotomy, under supervision, should be completed to the satisfaction of the nominated ophthalmologist.
4. A variety of iris, cornea, ocular co-morbidities, and simulated eyelid positions should be presented to ensure that an appropriate location and clinical technique is applied in each case, to the satisfaction of the nominated ophthalmologist.

5. The nominated ophthalmologist may use this opportunity relate theoretical knowledge of the procedure and anatomy to the clinical presentations.

Once the series of mock peripheral iridotomies have been completed to a level deemed satisfactory by the nominated ophthalmologist, the optometrist should directly observe the nominated ophthalmologist complete a **minimum of 20 iridotomies** to ensure that their knowledge can be applied to real-world examples. This stage requires completing a detailed *Laser surgeries logbook* (Appendix 3) that must be submitted for the Board's approval, before the optometrist may continue with the training.

6. These cases should be interactive and probe the optometrist's knowledge and clinical decision making during each case. Note that in considering the patient's best interests, this discussion may take place once the consultation has finished.
7. At a minimum, pre- and post-treatment binocular views should be obtained on the slit lamp. Ideally, the entire procedure would also be followed through a teaching tube or video capture.
8. Selection of the laser parameters and target areas should be discussed with the optometrist, in addition to cautionary features of the treatment and recognition of potentially difficult cases.
9. Particular attention should be made for cases where higher laser powers may be required, or unique or complex cases which may require consultation or referral to an ophthalmologist.
10. The optometrist is required to keep a record of each case (Appendix 3), including the clinical presentation, laser settings, surgical procedure, and patient outcomes.
11. Once at least twenty cases have been observed, the nominated ophthalmologist must co-sign the logbook with the optometrist to declare that all training has been completed to a standard to which they are satisfied.
12. The nominated ophthalmologist must also sign and date the *Laser surgery declaration* (Appendix 4). This includes a summary of all surgical procedures.
13. Before the optometrist can proceed to perform the procedure themselves, the *Laser surgeries logbook* (Appendix 3) must be submitted and approved by the Board. This provides an additional opportunity for discussion of any of the cases.

Once the Board has given approval of the training logbook for the observed procedures, the optometrist may proceed to conducting the procedure themselves, under direct supervision<sup>1</sup> of their nominated ophthalmologist.

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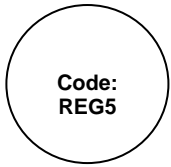
<sup>1</sup> Direct supervision means both the nominated ophthalmologist and optometrist are present in the room during the procedure.



14. Patients must be made aware of the training nature of the procedure and give appropriate consent by signing an Agreement to Treatment (Consent) Forms prior to the practitioner undertaking the laser procedure.
15. The Consent Form should document the title and position of the practitioner being trained and that patients have been made aware that they are in training under direct supervision.
16. Feedback is given to the optometrist either during or immediately after the observed treatment.
17. A detailed log of the cases, including feedback from the nominated ophthalmologist, must be recorded in a *Laser surgeries logbook* (Appendix 3), similar the observation logs completed previously.
18. Additional questioning, such as more complex 'What-if?' type scenarios can be used to help the nominated ophthalmologist obtain the required level of confidence in the optometrist
19. After a **minimum** of 10 directly supervised surgeries, if the nominated ophthalmologist believes that the optometrist can independently, competently, and safely complete the procedure, this logbook should be signed off.
20. The nominated ophthalmologist must also sign and date the *Final supervisor sign-off and declaration* (Appendix 5).
21. The signed-off *Laser surgeries logbooks* (Appendix 3) and Final supervisor sign-off and declaration (Appendix 5) should be submitted to the Board (ODOB) and must be accepted by the Board before the practitioner is allowed to independently perform the surgery.
22. On-going approval from the Board is contingent on a suitable work environment, a satisfactory nominated ophthalmologist being available, and meeting the auditing requirements set out for continuing competency in each procedure.

## References

1. He M, Jiang Y, Huang S, et al. Laser peripheral iridotomy for the prevention of angle closure: a single-centre, randomised controlled trial. *Lancet*. 2019. doi:10.1016/S0140-6736(18)32607-2
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5. Gupta V, Dada T. Should we perform peripheral laser iridotomy in primary angle closure suspects: implications of the ZAP trial? *Ann Transl Med*. 2019. doi:10.21037/atm.2019.06.52



**APPLICATION FOR AN ADDITIONAL SCOPE: SPECIALIST OPTOMETRIST SCOPE OF PRACTICE – OPHTHALMIC LASER SURGERIES SPECIFIED LASER SURGERY**

**Section 1: Personal and contact details**

Please print clearly

I (*full name*) ..... Registration no.....  
 wish to apply for and addition scope, and the registration in the Specialist Optometrist Scope of Practice –  
 Ophthalmic Laser Surgery.

Title (*circle*): Dr/Mr/Miss/Mrs/Ms/Mx First/other names: .....

Family name/surname: .....

Previous names (*if any*) you have used:..... Date changed:.....  
 (*please attach evidence of previous name(s) – this must be an original document or a certified copy*)

Date of birth: day/month/year...../...../..... Country of birth: .....

Postal address ( <i>this will not be published</i> )	Work address if different from postal address ( <i>this will be part of the public register unless you provide a written objection</i> ):	Residential address ( <i>this will not be published</i> )
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
Postcode: .....	Postcode: .....	Postcode: .....

Work phone: ..... Cell phone: ..... Other phone: .....

Primary email contact.....

Tick one of the following to show which ethnic group or groups you belong to. If you consider that you belong to more than one ethnic group, please tick the appropriate ones that you most strongly identify with.

- |  |   |                                     |
|--|---|-------------------------------------|
| <input type="checkbox"/> NZ Māori        | <input type="checkbox"/> NZ European (Pākehā) | <input type="checkbox"/> Australian |
| <input type="checkbox"/> Pacific peoples | <input type="checkbox"/> Other European       | <input type="checkbox"/> Asian      |
| ( <i>Please specify</i> )<br>.....       | ( <i>Please specify</i> )<br>.....            | ( <i>Please specify</i> )<br>.....  |
| <input type="checkbox"/> African         | <input type="checkbox"/> Indian               | <input type="checkbox"/> Other      |
|  |   | ( <i>Please specify</i> )<br>.....  |

## Section 2: Evidence of completion of training

If you have successfully met the requirements of the training programme of the prescribed qualification for the Specialist optometrist scope of practice – Ophthalmic laser surgeries, please submit the following supporting documents:

- Board approval letter to begin training for a specified laser surgery
- Completed *Declaration of required learning*
- Completed and signed *Laser surgery logbook(s)*
- Completed and signed *Laser surgery declaration*
- Completed *Final supervisor sign-off and declaration*

## Section 3: Self declaration

*This statutory declaration must be no more than six months old at the time the complete application is received by the Board. In New Zealand, statutory declarations can be taken by a Judge, Commissioner of Oaths, Justice of the Peace, solicitor of New Zealand, notary public, commonwealth representative, or other officer authorised to take statutory declarations. If you are applying from overseas, you must find a person who is authorised to take a statutory declaration in the country from which you are applying.*

**PLEASE CONSIDER THE FOLLOWING DECLARATION CAREFULLY, BEFORE YOU SIGN.**

I, .....

Full name

of .....

Place of abode/address

Occupation

Solemnly and sincerely declare that

1. all of the information provided with this application is true and correct in every particular and detail.
2. I will provide the Optometrists and Dispensing Opticians Board with any such further information as it may require.
3. I know of no information that could cause the Optometrists and Dispensing Opticians Board not to be satisfied that I am a fit and competent person to be registered within the Specialist optometrist scope of practice.
4. I agree to permit the Optometrists and Dispensing Opticians Board to collect individual statistical data, and the disclosure of my name if requested by the Optometrists and Dispensing Opticians Board for the purposes of monitoring and auditing the health services offered by optometrists in the Specialist optometrist scope of practice.
5. I have no convictions, or any criminal charges pending in any court in New Zealand or elsewhere of any offence against the law (other than minor traffic offences). I understand that should I be made aware of any such convictions or criminal charges pending from the date of registration, I am required to notify the Board within 14 days of being made aware of it.
6. it is my responsibility to ensure that I meet the ongoing competency requirements for both the Optometrist scope of practice as well as the additional requirements relevant to the Specialist optometrist scope of practice, which are in addition and annual.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the *Oaths and Declarations Act 1957*.

Signature of declarant: .....


Declared at ..... on this ..... day of ..... 20

Before me: .....  
A person authorised to take statutory declaration

## Section 4: Payment section

- Fee for applicants applying within 1 year of the date the relevant training was completed: \$153.00
- Fee for applicants applying more than 1 year after the date the relevant training was completed: \$368.00 *(your application will be returned to you if the incorrect fee is paid).*

OR

Fee banked stamp: 

Please debit my *(please tick one)*

MasterCard

Visa

the sum of NZ\$ .....

**Card number** **Expiry date**

Cardholder's name.....Cardholder's signature.....

## Section 5: Checklist for applicants

- Application form is complete, and all questions answered.
- Payment details provided, and correct fee paid.

## Section 6: Supporting information/ Notes

**All documents must be originals or certified copies of originals.** A certified copy is a photocopy signed by a Judge, Commissioner of Oaths, Justice of the Peace, solicitor of New Zealand, notary public, commonwealth representative, or officer authorised to take statutory declarations in that country stating: **'this is certified as a true copy'**.

The Board will not process any application that is not duly completed, until it is declared completed by the Registrar. The Board may, if it thinks fit, receive any information from, or question, the applicant, or any other person, in respect of an application being considered by the Board. For the purposes of any such questioning, the Board may administer an oath to any person. Before the Board questions any other person about the applicant, the Board must advise the applicant about the identity of the persons to be questioned and the nature of the questions.

Under section 19(1) of the Act, the Board must consider a duly completed application as soon as reasonably practicable after receiving it.

The Board timeframe guide for processing this application is 20 working days.

1. Please post your application to:

The Registrar  
Optometrists and Dispensing Opticians Board  
PO Box 9644  
Wellington 6141  
New Zealand

2. If you have any questions, please contact the Board on:

Phone: (64 4) 474 0704  
Fax: (64 4) 474 0709  
Email: Annette.McCoy@odob.health.nz  
Website: www.odob.health.nz

or courier to:

Level 5  
22 Willeston Street  
Wellington 6011  
New Zealand

3. All attachments to this application form must be clearly marked with the following words:

“This is the attachment referred to in the Statutory Declaration of [name] declared at [location] this [ ] day of [ ] 201[ ]”.

## For office use

- Correct application fee paid
- Evidence of name change (*if applicable*)
- Application duly completed – including personal and contact details, training (qualification) information and statutory declaration.

\_\_\_\_\_  
**Registrar/Deputy Registrar signature**

**Date:**





## Section 4: Self declaration

*This statutory declaration must be no more than six months old at the time the complete application is received by the Board. In New Zealand, statutory declarations can be taken by a Judge, Commissioner of Oaths, Justice of the Peace, solicitor of New Zealand, notary public, commonwealth representative, or other officer authorised to take statutory declarations. If you are applying from overseas, you must find a person who is authorised to take a statutory declaration in the country from which you are applying.*

### PLEASE CONSIDER THE FOLLOWING DECLARATION CAREFULLY, BEFORE YOU SIGN.

I, .....

Full name

of ..... Occupation/ Designation

Place of abode/address

solemnly and sincerely declare that:

- a. I have performed a minimum number of 20 completed procedures per annum for each procedure (i.e. Nd:YAG Capsulotomy and Nd:YAG Peripheral Iridotomy).
- b. I have maintained the required learnings and have included a reflective statement on my learnings this year.
- c. I remain at the same work environment with the same supervisory environment, OR I have provided details of a change to my supervisory environment above.
- d. I agree to notify the Board of any change to my employer or supervisory environment as soon as practical.
- e. I have provided the Board a case log to meet the on-going audit requirements.
- f. I understand that the any future permission to undertake laser surgery is contingent on meeting on-going auditing requirements and employment in a suitable supervisory environment.
- g. I have completed a Board approved laser safety course within the previous two years.
- h. All of the information provided with this application is true and correct in every particular and detail.
- i. I know of no reason that could cause the Optometrists and Dispensing Opticians Board not to be satisfied that I am a fit and competent person to undertake this training.

And I make this solemn declaration conscientiously believing the same to be true and by virtue of the *Oaths and Declarations Act 1957*.

Signature of declarant: .....

Declared at ..... on this ..... day of ..... 20..

Before me: .....  
A person authorised to take statutory declaration



## Section 5: Laser Surgery Logbook and Continuing Competency Plan

Please attach the following:

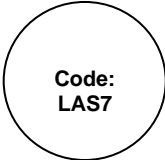
- Laser Surgery Logbook
- Continuing Competency Plan

### For office use:

- All questions completed
- All evidence attached
- Completed self-declaration

\_\_\_\_\_  
**Registrar/Deputy Registrar signature**

**Date:**



# CONTINUING COMPETENCE PLAN

**Optometrist details**

Title (*circle*): Dr/Mr/Miss/Mrs/Ms/Mx    First/other names: .....    Family name/surname: .....

Nominated Ophthalmologist Supervisor: .....    Registration No: .....

Area of development	Continuing professional development (CPD) activity/Action	Resources required	Planned completion date

.....  
Signature

.....  
Date