# 2022 RACGP curriculum and syllabus for Australian general practice

## **Eye presentations**

#### Rationale

#### Instructions

This section provides a summary of the area of practice for this unit and highlights the importance of this topic to general practice and the role of the GP.

Vision and eye disorders account for 1.9% of Australian general practice consultations.<sup>1</sup> Over 13 million Australians have one or more long-term eye condition(s) and more than 450,000 Australians are visually impaired or blind.<sup>2</sup> Long-term vision disorders are more common in older people, with 93% of people aged 65 years and over affected, compared with 12% of people aged 0 to 14 years.<sup>1</sup> As providers of comprehensive healthcare, general practitioners (GPs) need to be able to screen for, assess and manage vision and eye disorders, including eye emergencies, and refer to ophthalmologists and other eye care specialists as required. GPs also have an important role in the prevention of eye disease.

Approximately 90% of visual impairment and blindness is preventable and treatable. The main causes of visual impairment are uncorrected refractive errors and cataracts. These conditions and age-related macular degeneration, diabetic retinopathy and glaucoma are responsible for 80% of vision loss in Australia.<sup>2</sup>

The burden of vision and eye disorders in Australia is higher in Aboriginal and Torres Strait Islander peoples, and the prevalence of bilateral visual impairment and blindness is three times higher in this group compared to non-Indigenous Australians. Uncorrected refractive errors cause two thirds of visual impairment. Cataracts are the leading cause of blindness, as opposed to macular degeneration in non-Indigenous Australians, causing 40% of blindness.<sup>2-4</sup> need to consider the legal, social and emotional implications of visual impairment, and address these aspects within the provision of comprehensive healthcare.

Prevention of avoidable vision loss is a health priority.<sup>2</sup> GPs have the key role in discussing risk modification with patients to prevent eye disease. The main modifiable risk factors for chronic eye health conditions include smoking, poor nutrition, lack of physical exercise and excess alcohol consumption. Eye infection, lack of suitable eye protection, UV exposure and medications, including corticosteroids, are also risks for eye pathology.<sup>5</sup> Promoting lifestyle change is important in preventing visual conditions and vision loss. This is particularly important in people at increased risk of vision loss, including patients with diabetes and hypertension, where appropriate management of their underlying medical condition will also prevent eye disease.

There is inequity in eye healthcare in Australia, with Aboriginal and Torres Strait Islander peoples and people living in rural and remote communities having less access to services including optometrists, correction of refractive errors, surgical management of cataracts and to have correctable causes of visual impairment treated.<sup>2</sup> Equitable access to eye healthcare is a health priority in Australia.<sup>6</sup> GPs therefore need to advocate for improved access to culturally appropriate and affordable eye health services, including cataract surgery and correction of refractive error.

Vision loss can have profound negative impacts on health and wellbeing. In children, visual impairment can affect development and learning. In adults, visual loss can result in falls and injuries, social isolation, loss of independence and have a negative impact on emotional wellbeing. GPs play a major role in screening for and managing visual and other eye problems in vulnerable populations such as babies and children, Aboriginal and Torres Strait Islander peoples, people with diabetes and hypertension, and older adults. GPs also

#### References

- 1. Australian Institute of Health and Welfare. Eye health. Cat. no. PHE 260. Canberra, ACT: AIHW, 2021 (http://www.aihw.gov.au/reports/eye-health/eye-health) [Accessed 15 September 2021].
- 2. Foreman J, Keel S, Xie J, et al. National Eye Health Survey 2016. Melbourne, Vic: Centre for Eye Research Australia and Vision 2020 Australia, 2016 (http://www.vision2020australia.org.au/wp-content/uploads/2019/06/National-Eye-Health-Survey Summary-Report FINAL.pdf) [Accessed 15 September 2021].
- 3. <u>Australian Indigenous HealthInfoNet .Eye Health. Mt Lawley, WA: Australian</u> <u>Indigenous HealthInfoNet, (https://healthinfonet.ecu.edu.au/learn/health-topics/eye-health/)</u> [date unknown] [Accessed 15 September 2021].
- 4. <u>Australian Institute of Health and Welfare Indigenous eye health measures 2018.</u> <u>Canberra, ACT: AIHW, 2019 (http://www.aihw.gov.au/reports/indigenous-australians/indigenous-eye-health-measures-2018/contents/summary)</u> [Accessed 15 September 2021].
- 5. <u>Healthdirect. Eye care. 2019. Canberra, ACT, 2019</u> (<u>https://www.healthdirect.gov.au/eye-care)</u> [Accessed 4 May 2022].
- 6. Abouzeid M, Anjou MD, Taylor HR. Equity in vision in Australia is in sight. Med J Aust 2015; 203 (1): 21-23. doi: 10.5694/mja14.01355

#### **Competencies and learning outcomes**

#### Instructions

This section lists the knowledge, skills and attitudes that are expected of a GP for this contextual unit. These are expressed as measurable learning outcomes, listed in the left column. These learning outcomes align to the core competency outcomes of the seven core units, which are listed in the column on the right.

Communication and the patient-doctor relationship	
Learning outcomes	Related core competency outcomes
The GP is able to:	
• communicate the eye examination process to patients, their families or carers in a clear and respectful manner, checking for understanding	1.1.1, 1.1.3, 1.1.6, AH1.3.1
• communicate the need for a referral to an ophthalmologist or other eye specialist as required	1.1.2, RH1.1.1, 1.4.2

Applied knowledge and skills	
Learning outcomes	Related core competency outcomes
The GP is able to:	
<ul> <li>perform eye examinations and vision assessments in patients of all ages</li> </ul>	2.2.1, 2.1.5, 2.1.6, 2.1.7, AH2.1.2
• assess and manage acute eye conditions, including eye infections and foreign bodies	2.1.4, 2.1.9, AH2.1.2, RH2.1.1
<ul> <li>assess and manage chronic eye conditions, including strabismus, glaucoma and those that occur in the context of chronic disease such as diabetes and hypertension</li> </ul>	2.2.2, AH2.3.1, RH2.3.1
assess and manage eye emergencies	2.1.3, 2.3.1, 2.3.2, 2.3.3, RH2.1.1

Population health and the context of general practice	
Learning outcomes	Related core competency outcomes

Population health and the context of general practice	
The GP is able to:	
• identify patients at increased risk of vision loss and eye disease due to risk factors and promote relevant lifestyle changes	3.1.1, 3.1.4, 3.2.2
• identify barriers to timely and appropriate healthcare for eye and vision conditions and advocate for equitable access for patients, particularly Aboriginal and Torres Strait Islander peoples and those living in rural and remote locations	3.2.4, AH3.2.1, RH3.2.1
• use planned and opportunistic approaches to provide screening and promote risk modification for eye disease	3.1.1, 3.1.4, AH3.2.1

Professional and ethical role	
Learning outcomes	Related core competency outcomes
The GP is able to:	
• reflect on personal knowledge and skills in relation to vision and eye health and identify areas to build on	4.2.1, 4.2.2, RH4.2.2, RH4.2.3

Organisational and legal dimensions	
Learning outcomes	Related core competency outcomes
The GP is able to:	
• use effective and secure record keeping, recall systems and clinical audits to provide quality eye healthcare and promote disease prevention	5.2.1, 5.2.3, AH5.2.1
<ul> <li>discuss the legal implications of visual loss such as fitness to drive</li> </ul>	5.2.3

### Words of wisdom

### Instructions

This section includes tips related to this unit from experienced GPs. This list is in no way exhaustive but gives you tips to consider applying to your practice.

Extension exercise: Speak to your study group or colleagues to see if they have further tips to add to the list.

- 1. Always assess visual acuity before examining the eye itself. Mark the appropriate distance from the chart with tape or other mark on the floor. Learn how to use a pinhole to determine if any reduction in visual acuity is refractive.
- 2. Beware the one red eye. Unilateral eye redness is more likely to point to a serious diagnosis, such as acute glaucoma or uveitis. Conjunctivitis, particularly viral and allergic, is almost always bilateral.
- Invest in a hand puppet. They are invaluable when assessing eyes/vision in children. They help you to distract the child and 3. have a moving target to assess for fixation and following.
- Certain medications such as sildenafil, some eye disorders, and some systemic diseases can cause acquired colour blindness. 4.
- 5. Normal light bulbs give a yellowish light which can affect assessment of colour vision. Colour vision should be assessed in natural sunlight.
- Never assume that it's 'just conjunctivitis'. Always examine the eye with fluorescein staining, in case there is a dendritic ulcer. 6.
- 7. Steroid eye drops should only be used after consultation with an ophthalmologist.

#### Case consultation example

#### Instructions

- 1. Read this example of a common case consultation for this unit in general practice.
- 2. Thinking about the case example, reflect on and answer the questions in the table below.

You can do this either on your own or with a study partner or supervisor.

The questions in the table below are ordered according to the <u>RACGP clinical exam assessment areas</u> (https://www.racgp.org.au/getmedia/f93428f5-c902-44f2-b98a-e56d9680e8ab/Clinical-Competency-Rubric.pdf.aspx) and domains, to prompt you to think about different aspects of the case example.

Note that these are <u>examples only</u> of questions that may be asked in your assessments.

**Extension exercise**: Create your own questions or develop a new case to further your learning.



Germain is a 29-year-old Aboriginal man who works for a local aged care provider as a driver. His employer has made this appointment as a matter of urgency, requesting an assessment of Germain's vision, as he hit a bollard with the community bus this morning.

Germain has stated that he didn't see the bollard, which was on the driver's side of the car. The insurer has stipulated that he must have a satisfactory vision assessment before he can go back to driving for work. Germain is the only staff member with a commercial driver licence. He was diagnosed with type 2 diabetes and hypertension at the age of 22, and is currently prescribed metformin, irbesartan and atorvastatin. He is a patient of the practice, but this is the first time you have seen him.

Questions for you to consider	Domains

Questions for you to consider		Domains
What strategies could you use to establish a therapeutic relationship with an Aboriginal or Torres Strait Islander patient?	1. Communication and consultation skills1,2,5	1,2,5
What strategies would you use to assess Germain's health literacy and tailor your approach for him?		
How would you communicate your decision if you decide that Germain is not fit to drive?		
How would your approach differ if there had not been an accident, but you noted that Germain had reduced vision at a general check-up?		
What information would you collect through history-taking and examination in this case?	2. Clinical information gathering and interpretation	2
What if Germain presented with eye pain or with a unilateral red eye or discharge from the eye?		
How would you assess visual acuity in a patient who is functionally illiterate?		
What is your differential diagnosis?	3. Making a diagnosis, decision making and reasoning	2
Germain says that he has pain in his right eye. How does this information change your differential diagnosis?		
What is your management plan for Germain?	4. Clinical management and therapeutic reasoning	2
When would you refer him?		
How would you organise referral if you were in a rural or remote location? What factors or findings would prompt an urgent retrieval?		
In addition to an ophthalmological history and examination, are there any screening activities that you would include in this consultation?	5. Preventive and population health1,2,3	1,2,3
What aspects would you consider when assessing fitness to drive and fitness to work?		

In this context, to whom do you owe duty of care? Does this	6. Professionalism	4
change if you find that Germain is not fit to drive?		

Questions for you to consider		Domains
You refer Germain to the local optometrist for assessment. How would you use your practice software to ensure follow-up occurs?	7. General practice systems and regulatory requirement	5
How would you explain the confidentiality issues for this consultation?		
What are your obligations if you find Germain's vision does not meet the standard of being fit to drive? What are your obligations with respect to his employment?		
How would you assess intraocular pressure? You find that Germain has a corneal foreign body. How would you remove this?	8. Procedural skills	2
How would you manage this situation if you found no red flags?	9. Managing uncertainty	2
What are the red flags/clinical findings that would prompt urgent referral?	10. Identifying and managing the significantly ill patient	2
Which eye emergencies could present in this manner?		

#### Learning strategies

### Instructions

This section has some suggestions for how you can learn this unit. These learning suggestions will help you apply your knowledge to your clinical practice and build your skills and confidence in all of the broader competencies required of a GP.

There are suggestions for activities to do:

- on your own
- with a supervisor or other colleague
- in a small group
- with a non-medical person, such as a friend or family member.

Within each learning strategy is a hint about how to self-evaluate your learning in this core unit.



Identify five patients who have presented to your practice who are aged 75 years or older and have had a fall. From looking at their medical records, was their vision assessed as part of the falls risk assessment?

- Which eye conditions can contribute to falls risk?
- How would you assess a patient to diagnose or rule out each one?

Identify five patients with type 2 diabetes. Have they had a visual assessment, including visualisation of the retina, in the past two years?

- Which population groups are considered high risk for development of retinopathy? How often should screening be done?
- What systems can you use to ensure that all patients with diabetes have their eye health screened every two years?

Using the reporting function in your practice software, find the five most common presenting eye problems in your practice.

- Are these presentations the same as the five most common eye diagnoses in Australia? If not, what factors influence the difference?
- Are there any that you are less comfortable with managing? How might you learn more about these conditions?

With your local pharmacist, review over-the-counter preparations for use in eye care, including their correct application/use.

• Are there any preparations that you were unaware of?



#### With a supervisor

Review the equipment for eye examination in your practice.

- Do you have access to the equipment that you need to perform an eye examination? Is there anything missing that could be useful?
- Do you know how to use each piece of equipment? Do you have distances measured and marked for assessment of visual acuity? Do you have adequate lighting in order to accurately assess for colour blindness?
- Ask your supervisor to demonstrate or observe you using the equipment.

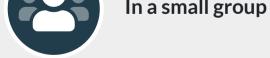
Choose an eye presentation that you find difficult or challenging to diagnose or manage. If you haven't seen a patient presenting with an eye problem, make up a fictional case. Discuss the case/presentation with your supervisor.

- Does your supervisor have any tips for diagnosing and managing patients presenting with eye problems?
- What is your system for assessing eyes, and how does that compare with your supervisor's system? Does it vary depending on the age of the patient?
- Does your supervisor have any tips to share with you?

Ask your supervisor to sit in on your next consultation for an eye presentation.

- Did you assess for red flags? Did you safety-net appropriately?
- Does your supervisor have any suggestions or feedback?
- How could you change your practice next time?





Role-play a consultation of a patient presenting with eye symptoms. For example, a 5-year-old boy with a unilateral red eye, an 85-year-old lady with gradual visual loss, a 42-year-old male with sudden unilateral visual loss.

- What is your differential diagnosis? Which elements of the history help to refine your differential diagnosis?
- How would you examine the patient? Which parts of the examination are most useful in narrowing the diagnosis?

Practise direct ophthalmoscopy and review retinal photographs on the internet.

- What does a normal optic disc look like? What are the causes of changes in the optic disc?
- What does a normal retina look like? What are the retinal changes in various conditions?
- Take turns to describe the image, and relate the abnormality seen with the likely diagnosis/diagnoses.

• As a group, share your tips on conducting ophthalmoscopy.



#### With a friend or family member

Pretend a child has strabismus and explain to the parent/carer (your friend or family member) what it is and how you would manage it. Demonstrate how you would examine the child.

- How do you distinguish between manifest and latent strabismus?
- How would you manage strabismus? Would you manage the patient differently if you were in a rural/remote area without access to an ophthalmologist?

Practise assessing visual acuity in an adult.

- Explain the process to your friend or family member as you do the assessment.
- How would you correct for refractive error?
- How would you assess visual acuity in a patient with limited English or who is functionally illiterate?

Practise explaining management of common eye conditions, such as conjunctivitis, blocked tear duct, pterygium, strabismus or glaucoma.

- How can you explain the practicalities of how to use eye drops, or how to manage an eye injury (including the correct way to flush an eye), and the need for UV protection?
- Ask your friend or family member for feedback. Did they find your explanation easy to understand? Do they have any questions?

#### Guiding topics and content areas

#### Instructions

These are examples of topic areas for this unit that can be used to help guide your study.

Note that this is <u>not a complete or exhaustive list</u>, but rather a starting point for your learning.

#### Eye health in childhood

- Understand and describe normal visual development and milestones; including variations of normal development, for example, intermittent squint prior to six months of age.
- Perform an eye examination/vision assessment on an infant or child including:
  - red reflex
  - fix and follow
  - accommodation
  - assessment of visual acuity whilst correcting for refractive error.
- Recognise and manage serious eye conditions of childhood:
  - congenital/genetic:
    - congenital/paediatric cataract
    - retinoblastoma, other tumours of the eye
    - retinitis pigmentosa, keratoconus, and other genetic conditions
    - congenital blindness
    - haemangiomas
  - acquired:

- amblyopia
- retinopathy of prematurity
- corneal abrasion
- chemical burns acid and alkali
- periorbital and orbital cellulitis
- other:
  - nystagmus
  - ptosis
  - coloboma
  - paediatric glaucoma.
- Diagnose and manage common eye disorders in childhood
  - bacterial and viral conjunctivitis
  - chalazion
  - hordeolum (stye)
  - blepharitis
  - allergic conjunctivitis
  - blocked tear duct
  - strabismus and pseudostrabismus
  - refractive error and astigmatism
  - colour blindness.

## Eye health in adults

- Diagnose and manage common eye conditions including:
  - visual disorders:
    - refractive error
    - strabismus and amblyopia
    - colour blindness
    - flashers and floaters
  - inflammatory:
    - allergic and irritant conjunctivitis
    - blepharitis
    - scleritis and episcleritis
    - iritis/uveitis
    - blocked nasolacrimal duct/dacrocystitis
    - pterygium
    - pinguecula
  - traumatic:
    - subtarsal foreign body
    - subconjunctival haemorrhage
    - hyphaema
  - complications of chronic disease:
    - hypertensive retinopathy
    - diabetic retinopathy and diabetic macular oedema
  - degenerative:
    - macular degeneration
  - other/multiple causes:
    - glaucoma
    - ptosis
    - dry eye
    - cataract
    - ectropion, entropion.
- Diagnose and manage common eye infections including:
  - conjunctivitis bacterial or viral
  - chalazion and hordeolum (stye)
  - trachoma and trichiasis.
- Diagnose and manage eye emergencies/serious eye conditions:

#### • traumatic:

- corneal injury abrasion/foreign body
- 'flash' burns
- chemical burns acid and alkali
- retinal detachment
- intraocular foreign body
- other direct trauma to the eye, including blowout fractures
- inflammatory or infective:
  - temporal arteritis
  - optic neuritis
  - herpes simplex keratitis
  - herpes zoster ophthalmicus
  - orbital and periorbital cellulitis
  - endophthalmitis
- other:
  - acute glaucoma
  - central retinal artery occlusion
  - central retinal vein occlusion
  - vitreous haemorrhage
  - intraocular tumour
  - papilloedema
  - corneal ulcer.
- Safely and competently perform common examinations:
  - fluorescein staining and examination with a blue light
  - dilatation of the pupil
  - assessment of visual acuity; including in culturally and linguistically diverse patients and illiterate patients
  - correction of refractive error and assessment of visual acuity
  - visual fields
  - eversion of the eye lid
  - assessment of intraocular pressure
  - assessment of colour vision
  - assessment of eye movements
  - direct ophthalmoscopy.
- Safely and competently perform common minor procedures:
  - removal of a conjunctival, corneal or subtarsal foreign body, including the use of a burr
  - incision and drainage of a hordeolum
  - eye irrigation and assessment of pH
  - trimming/removal of eye lashes in trichiasis.
- Recognise when eye symptoms or signs are related to systemic disease; for example:
  - blurred vision with uncontrolled diabetes due to change in lens shape
  - uveitis or dry eyes with rheumatoid arthritis.

#### Learning resources



#### Instructions

The following list of resources is provided as a starting point to help guide your learning only and is not an exhaustive list of all resources. It is your responsibility as an independent learner to identify further resources suited to your learning needs, and to ensure that you refer to the most up-to-date guidelines on a particular topic area, noting that any assessments will utilise current guidelines.

#### **Journal articles**

A succinct overview of childhood squints.

• O'Dowd C. <u>Evaluating squints in children (https://www.racgp.org.au/afp/2013/december/evaluating-squints)</u>. Aust Fam Physician 2013;42(12):872–74.

A framework for assessing and managing a child presenting with a red eye, with a focus on cases that require immediate referral.

• Lu SJ, Lee GA, Gole GA. <u>Acute red eye in children: A practical approach</u> (<u>https://www1.racgp.org.au/ajgp/2020/december/acute-red-eye-in-children</u>). Aust J Gen Pract 2020;49(12).

This review discusses the differential diagnosis of monocular and binocular transient vision loss and the relevant localising features of each.

• Heath Jeffery RC, Chen FK, Lueck CJ. <u>Blackout: Understanding transient vision loss</u> (<u>https://www1.racgp.org.au/ajgp/2021/march/blackout-understanding-transient-vision-loss</u>). Aust J Gen Pract 2021;50(3).

#### Textbooks

An overview of the causes of visual failure and their management, with a good framework for assessment.

• Visual failure. In Murtagh J, Rosenblatt J, Coleman J, Murtagh C, editors. John Murtagh's General Practice, 7th edn. Sydney: McGraw Hill, 2018. (Available from the RACGP library.)

Succinct descriptions of the assessment and management of most common eye conditions.

• Simon C, Burkes M, Everitt H, van Dorp F. General Practice: Oxford Handbook of General Practice. Oxford: Oxford University Press USA - OSO; 2014. (Available from the RACGP library.)

An overview of the causes and management of red and painful eye; including a good framework for assessment.

The red and tender eye. In Murtagh J, Rosenblatt J, Coleman J, Murtagh C, editors. John Murtagh's General Practice, 7<sup>th</sup> edn.
 Sydney: McGraw Hill, 2018. (Available from the RACGP library.)

#### **Online resources**

Practical guidelines that are easy to implement in day-to-day practice.

• The Royal Victorian Eye and Ear Hospital. <u>Primary care management guidelines (https://eyeandear.org.au/health-professionals/for-gps/primary-care-management-guidelines/)</u>.

Information on all the common and serious childhood eye presentations.

• The Royal Children's Hospital Melbourne. <u>Clinical practice guidelines (https://www.rch.org.au/clinicalguide)</u>.

#### Learning activities

eLearning activities on eye presentations.

- The Royal Australian College of General Practitioners. *gplearning*(<u>https://www.racgp.org.au/education/professional-development/online-learning/gplearning</u>):
  - check, unit 551, July 2018: Ophthalmology
  - check, unit 582, May 2021: Ophthalmology
  - AJGP Clinical Challenge August 2019: Eyes

Webinar on managing common ocular presentations.

 RACGP & Access Telehealth. Look into my eyes: Common ocular presentations and how to manage them (https://www.racgp.org.au/education/professional-development/online-learning/webinars/rural-health/common-ocularpresentations-and-how-to-manage-them).

#### .....

Specific information on the recognition and management of trachoma and trichiasis.

 Royal Australian College of General Practitioners. <u>National guide to a preventive health assessment for Aboriginal and Torres</u> <u>Strait Islander people. Chapter 6: Eye health – Trachoma and trichiasis (https://www.racgp.org.au/clinical-resources/clinical-guidelines/key-racgp-guidelines/view-all-racgp-guidelines/national-guide/chapter-6-eye-health/trachoma-and-trichiasis).
</u>

#### This contextual unit relates to the other unit/s of:

- Domain 3. Population health and the context of general practice (https://www.racgp.org.au/curriculum-andsyllabus/units/domain-3)
- <u>Aboriginal and Torres Strait Islander health (https://www.racgp.org.au/curriculum-and-syllabus/units/aboriginal-and-torres-strait-islander-health)</u>
- Child and youth health (https://www.racgp.org.au/curriculum-and-syllabus/units/child-and-youth-health)
- Disability care (https://www.racgp.org.au/curriculum-and-syllabus/units/disability-care)

- Emergency medicine (https://www.racgp.org.au/curriculum-and-syllabus/units/emergency-medicine)
- Endocrine and metabolic health (https://www.racgp.org.au/curriculum-and-syllabus/units/metabolic-and-endocrine-health)
- Infectious diseases (https://www.racgp.org.au/curriculum-and-syllabus/units/infectious-diseases)
- Neurological presentations (https://www.racgp.org.au/curriculum-and-syllabus/units/neurological-presentations)
- <u>Occupational and environmental medicine (https://www.racgp.org.au/curriculum-and-syllabus/units/occupational-and-environmental-medicine)</u>
- Older person's health (https://www.racgp.org.au/curriculum-and-syllabus/units/older-person-s-health)
- Rural health (https://www.racgp.org.au/curriculum-and-syllabus/units/rural-health)

Printed from the RACGP website at https://www.racgp.org.au/education/education-providers/curriculum/curriculum-and-syllabus/units/eye-presentations 6/05/2022