RETINAL CAMERA TOOLKIT
The Provision of Eye Health and Equipment Training Project
funded by the Australian Government Department of Health

This Toolkit is designed to aid the embedding of retinal cameras into a primary health care service. Although it is designed to accompany the Canon CR-2AF camera, most of the resources are relevant for the embedding of any retinal camera.
We acknowledge the traditional Aboriginal and Torres Strait Islander Custodians of the many lands that we live and work on, and their continuing connection to Country and Culture.

We pay our respects to Elders past, present and emerging.

We thank all Aboriginal and Torres Strait Islander Peoples whose participation and contribution has been key to the success of this project.
The Consortium thanks those who attended the 2018 November Embedding Workshop and all others who have contributed in the making of this Toolkit.
Section 8
Other Resources
Communicare acknowledges the business intelligence and product development shared through respectful partnerships spanning more than 20 years in the Aboriginal Community Controlled Health and medical services sector and looks forward to evolving Communicare as the state of the art primary health care system in the national effort to reduce health inequality and close the gap in a generation.

© AHCSA 2019. The content and design of this book, imagery and logos used in it, are and remain the intellectual property of AHCSA or other authors and content providers as are noted. No title or ownership rights are transferred by virtue of their inclusion in this document. Unless specifically authorised, you may not copy, reproduce, modify, publish, transmit, transfer or sell, create derivative works from, perform or display any of the content contained in this document, whether in whole or in part.
AHCSA's Eye Health Program ‘Deadly Sights’ aims to support Members to develop and deliver comprehensive primary eye health services to reduce the prevalence and incidence of poor eye health and vision loss in Aboriginal populations.
About the Deadly Sights
Communicare and MBS Guide

Deadly eye health is important to us all. Poor eye health or vision loss can impact on functionality and everyday tasks, and it can limit an individual’s education, employment and social opportunities.

It can also increase the risk of injury, leading to dependence on services and other people [1]. These negative consequences are not only felt by people with poor vision, but also by their families and communities. Aboriginal and Torres Strait Islander children, especially those living in remote areas, generally begin life with better vision than non-Indigenous Australian children [2]. This trend reverses by adulthood, with Aboriginal and Torres Strait Islander adults being three times more likely to experience vision loss or blindness than non-Indigenous adults [3]. Uncorrected refractive error, cataracts, and diabetic retinopathy are the main non-acute causes of vision loss and blindness among Aboriginal and Torres Strait Islander people [3]; however, trachoma and trichiasis are also prevalent in some communities [4]. Despite these facts, approximately 94% of vision loss and blindness among Aboriginal and Torres Strait Islander people is preventable or treatable [3].

Regular eye screening begins in primary health care. However, limited availability of ophthalmologists worldwide makes it impossible for them to undertake all of the eye examinations required to detect those at risk of vision loss and/or in need of treatment [5]. As such, those clinicians working in primary health care are the best placed for supporting people to understand how to look after their eyes, access eye health exams, and to refer those requiring treatment.

The Deadly Sights Communicare and MBS Guide is a broad-based set of recommendations combining clinical, practical and technical information relating to screening, referrals and principals for management of non-acute visual impairment in primary health care settings.

Aboriginal and Torres Strait Islander people are THREE times more likely to have vision loss or blindness than other Australians

This guide outlines suggested documentation pathways using Communicare V18.4. Please note that it requires local administrator modifications in order for Communicare to perform as shown. Please contact AHCSA for details of any of the following locally created clinical items outlined; ‘Visual acuity;pinhole’, ‘Photography assessment;retinal’, ‘Check up;optometrist’, and ‘Check up;ophthalmologist’.
Conditions that Cause Vision Loss

The leading causes of vision loss for Aboriginal and Torres Strait Islander people aged 40 and over in 2016 were refractive error (63%), cataract (20%), and diabetic retinopathy (5.5%) [6]. Trachoma infections can lead to blindness and is also a significant issue. Early detection of these conditions is important to eliminate or reduce the severity of vision loss.

Refractive Error

Refractive error is the most commonly reported eye condition amongst Aboriginal and Torres Strait Islander people, and one of the major causes of their visual disadvantage [7]. A refractive error means that the shape of your eye does not bend light correctly, resulting in a blurred image.

The treatment of refractive error is easier than the treatment of other causes of vision loss as it can generally be corrected with appropriate glasses or contact lenses.

Visual acuity testing will identify blurred vision or vision loss. If this is detected, a referral to an optometrist is required for diagnosis and treatment.

Cataracts

Aboriginal and Torres Strait Islander people develop cataracts at a higher rate, and at an earlier age, compared to non-Indigenous Australians [7], yet are four times less likely to have cataract surgery [8]. Initially, cataracts may only slightly reduce vision, but over time can lead to visual loss. Most of this blindness is avoidable since cataracts can be easily treated with surgery performed by an ophthalmologist. Cataracts are characterised by clouding of the lens affecting vision. It can develop in one or both eyes [5].

The reason for the increased prevalence of cataracts in Aboriginal and Torres Strait Islander people is not certain. Causes of cataracts include: aging; diabetes; hypertension; obesity; smoking; prolonged use of some medications; previous eye injury or inflammation; and exposure to sunlight [9].

Diabetic Retinopathy

Diabetes is the fastest growing cause of visual loss in the adult Aboriginal and Torres Strait Islander population. One in ten Aboriginal and Torres Strait Islander adults with diabetes experience vision-threatening diabetic retinopathy [10]. Many are not being adequately screened or treated for its blinding complications.

Diabetic retinopathy is a complication of diabetes that involves damage to the blood vessels of the retina (nerve layer lining the back of the eye). This is the part of the eye which imprints the image that is sent to the brain. It is a ‘silent disease’ which can damage people’s eyes before they even know they have diabetes or experience any problems with their vision [7].

If left undetected, symptoms can appear in one or both eyes, generally beginning with blurred or distorted vision, and then a reduced visual field. As the disease progresses, it can lead to partial or complete blindness [8]. Over ninety percent of vision loss caused by diabetic retinopathy can be prevented by early detection and appropriate treatment, such as laser surgery or injections [11].

Diabetic retinopathy can be diagnosed by an optometrist or ophthalmologist. It may also be detected following the review of a retinal photograph by a suitably trained health professional. See pages 9-18 for a recommended systems approach to management using Communicare.
Trichiasis

Trichiasis is the result of repeated infections of trachoma usually experienced in childhood which causes inflammation especially of the tarsal conjunctivae (the inside lining of the eyelids). Long-term inflammation leads to scarring and distortion of the upper eyelid with in-turning of eyelashes (trichiasis) that scratch the cornea (the central clear exterior of the eye). In turn, these constant abrasions can cause irreversible corneal opacity (clouding) and blindness.

Although trachoma was eliminated from most parts of Australia by the 1930s, it continues to be a significant public health problem in Aboriginal and Torres Strait Islander communities in many rural and remote areas of the NT, SA and WA with the associated risks of infected individuals developing trichiasis.

The World Health Organization (WHO) adopted a resolution to eliminate blinding trachoma as a public health problem by 2020. Australia is a signatory to this resolution, the Global Elimination of Trachoma (GET 2020). For Australia to achieve the GET target, there needs to be a system in place to identify and manage incident (new) cases of trichiasis.

See pages 5 to 8 for how this can be supported by Communicare.
Eye Checks in Aboriginal and Torres Strait Islander Health Checks

In the primary health care setting, the early detection of eye conditions will often occur when clients undergo an annual Aboriginal health check. Primary health care staff are then able to follow appropriate referral pathways for treatment and management of any conditions identified.

In both the ‘Check up; Aboriginal and TSI adult’ and ‘Check up; Aboriginal and TSI over 55s’ Communicare clinical items, visual acuity and trichiasis checks are recorded under Examination of the patient.
Performing the Visual Acuity Test

Testing visual acuity in the first instance is always performed Unaided (with the naked eye) or Aided/Corrected (with the client’s existing glasses or contact lenses). After performing visual acuity and recording the results in the healthcheck, if a client’s best vision is worse than 6/6 (normal vision), test again with a pinhole occluder.

There are a range of conditions that cause a reduction in visual acuity. Testing with a pinhole occluder may help to identify if the reduction is due to a refractive error, which can usually be corrected with glasses.

Ask the client to hold the occluder in front of the eye to be tested and cover the other eye.

- Repeat visual acuity test through pinhole.
- Do this again for other eye if required.

When using pinhole occluder:

- If distance vision improves, it is likely the person has some refractive error. New glasses will help.
- If distance vision doesn’t improve at all, there is likely to be another cause for reduced vision. New glasses won’t help [12].

Document in Communicare as follows:

1. In the client’s clinical record, select the Clinical Item icon.

2. This will launch the Clinical Terms Browser. Search for and select the clinical item ‘Visual acuity; pinhole’. Complete the qualifiers as necessary and ‘Save’.

The majority of conditions affecting visual acuity will require a referral to an optometrist/ophthalmologist. If reduced vision is identified whilst performing the annual health check, follow the referral instructions outlined on pages 19-22.
Performing the Trichiasis Check

The clinical diagnosis of trichiasis is defined as the presence of at least one in-grown eyelash touching the eyeball, or evidence of recent removal of in-turned lashes. It is recommended that a suspected case of trichiasis is confirmed by a health professional experienced in the diagnosis of trichiasis. In most cases this will be an ophthalmologist. Minor surgery is usually required to repair the distorted or in-turned eyelid.

If the examination reveals one or more eyelashes touching the eyeball, or evidence of epilation (removal of in-turned eyelashes):

Review client’s clinical record to see if a diagnosis of trichiasis has previously been documented and any details of follow up with an ophthalmologist, including if the client has had surgery or not. You will find this information by following steps 1-3.

1. Go to the ‘Detail’ tab.
2. Select to View Clinical Items By: ‘Topic’.
3. Then select ‘Eye’. You can right click on any of the items here and select ‘find associated service details’. This will take you to the place in the client’s clinical record where the progress note was written.

If trichiasis has not been previously documented and YOU ARE NOT a health professional with experience in the diagnosis of trichiasis:

4. Document the clinical item ‘Ingrown; eyelash’ in the client’s clinical record, reporting your findings in the comment box e.g. Suspected trichiasis.
OR

If trichiasis has not been previously documented and YOU ARE a health professional with experience in the diagnosis of trichiasis:

5. Document the clinical item ‘Trichiasis’ in the client’s clinical record, with any necessary comments in the comment box.

It is important that trichiasis or suspected trichiasis is examined by an ophthalmologist. Following steps 4 or 5, organise a referral to an ophthalmologist. See pages 19-22 for details on documenting a referral.

A person with trichiasis who has not had previous surgery for trichiasis should be given at least three opportunities to have surgery. Refusal of surgery should be documented, ideally in the presence of a family member.
Retinal Photography in Communicare

Retinal cameras in primary health care services provide opportunistic access to retinal photography for people with diabetes who have missed their annual screen or required eye examination. Taking the retinal photograph also provides a visual tool for timely and effective client education.

The assessment of the retinal photographs enables referrals for a comprehensive eye examination or treatment by an optometrist or ophthalmologist to be generated where required. A retinal photograph does not replace a comprehensive eye examination.

It is recommended that any Aboriginal and Torres Strait Islander person living with diabetes be reviewed by a qualified eye health professional yearly.

Qualified practitioners authorised to take retinal photographs are:

- Primary health care practitioners who have completed the appropriate retinal camera operator training; and,
- Practicing secondary eye health professionals including optometrists, orthoptists and ophthalmologists.

Quality of the Photo

When taking the photo, if a clear image cannot be obtained due to small pupils, mydriatic drops are permitted under an approved protocol. If a clear image cannot be obtained for any other reason, the patient should be referred to an optometrist or ophthalmologist for further assessment.
Suggested Flow Chart for Client with Type 2 Diabetes

**RETINAL PHOTOGRAPHY**

| Trained Operator | Perform visual acuity and retinal camera photography;  
|                 | • Record using `Photography;retinal` clinical item in client's clinical record.  
|                 | • Upload photo into clinical item.  
|                 | • Completion of `Photography;retinal` clinical item triggers recall for `Photo assessment;retinal`. |

**PHOTO ASSESSMENT**

| Trained Assessor | Photo is assessed by someone appropriately trained;  
|                 | • Generate a list of clients requiring their retinal photo to be assessed.  
|                 | • Record using `Photography assessment;retinal` clinical item in client's clinical record. Claim MBS item 12325 or 12326 if applicable. |

**RESULTS**

| Normal | Refer to optometrist for a comprehensive eye examination in **one year’s time**.  
|        | *(If unable, then perform visual acuity and retinal photography in one year’s time).* |

**OR**

| Abnormal | Refer to optometrist/ophthalmologist according to Diabetic Retinopathy Guidelines (See Appendix 1). |

*Note*: If the client’s clinical record contains existing recalls set by the visiting optometrist or ophthalmologist for other reasons, they should not be superseded by the retinal screening results.
1. In the client’s clinical record, select the Clinical Item icon.

2. This will launch the Clinical Terms Browser. Enter RETINAL or PHOTOGRAPHY as a keyword to locate the ‘Photography;retinal’ clinical item.

3. Double click to select. The clinical item will appear.
4. Complete the qualifiers as necessary and ‘Save’.

---

**Photography – Retinal**

You MUST measure the client’s visual acuity for distance vision before taking the retinal photographs.

**Presenting Vision**

This is the client's visual acuity (distance vision) at the time of taking the retinal photographs.

**Unaided Distance Vision**

(Measure distance vision without glasses or contact lenses.)

<table>
<thead>
<tr>
<th>Visual acuity right eye</th>
<th>[No previous values]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual acuity left eye</td>
<td>[No previous values]</td>
</tr>
</tbody>
</table>

**Aided Distance Vision (i.e. corrected)**

(Measure distance vision with the client’s existing distance glasses or contact lenses.)

<table>
<thead>
<tr>
<th>Visual acuity right eye (corrected)</th>
<th>[No previous values]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual acuity left eye (corrected)</td>
<td>[No previous values]</td>
</tr>
</tbody>
</table>

**Distance Vision through Pupil**

(If unaided distance vision is worse than 6/18 in either eye, then measure vision through a pupil occluder.)

<table>
<thead>
<tr>
<th>Pupil Vision - R</th>
<th>[No previous values]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupil Vision - L</td>
<td>[No previous values]</td>
</tr>
</tbody>
</table>

**Pupils and Dilation**

When natural pupil size is 3.5mm or more, retinal photographs are usually fine without dilating the pupil. Measure the pupil size before considering dilating the patient.

<table>
<thead>
<tr>
<th>Pupil size</th>
<th>[No previous values]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iris shadow test</td>
<td>[No previous values]</td>
</tr>
<tr>
<td>Pupil dilated with instilled agent</td>
<td>Yes □  No □ Blank □</td>
</tr>
<tr>
<td>Dilation time (hrs/min)</td>
<td>[No previous values]</td>
</tr>
</tbody>
</table>

**Retinal Photography**

**Retinal photograph - R**

<table>
<thead>
<tr>
<th>Load Image</th>
<th>[No previous values]</th>
</tr>
</thead>
</table>

**Retinal photograph - L**

<table>
<thead>
<tr>
<th>Load Image</th>
<th>[No previous values]</th>
</tr>
</thead>
</table>

---

See next page for details on how to upload the retinal photos into this clinical item.
How to Upload the Photo into Communicare

Ensure the photo is saved in a file accessible on the computer you are using. Use a standard naming convention to avoid uploading the wrong photograph to a client’s file (e.g. Last name, first name, date, eye – AkersBetty17Dec18Right).

1. Within the ‘Photography;retinal’ clinical item, select to ‘Load Image’ next to the ‘Retinal photograph – R’ qualifier.
2. This will open up your file browser. Search for the location of the photo and select the correct photo.

   The photo will be loaded into the clinical item. You can double click on the image to expand it to full screen.

   Repeat the process for ‘Retinal photograph – L’. Select ‘Save’ on the ‘Photography;retinal’ clinical item.
4. Select ‘Save’ on the recall, and it will now appear as due in the client’s ‘To Do’ list.

**Note:** Some services experience issues uploading images. If this is the case, first check that the setting on the camera is not saving images as large files. You may also need to change the settings in Communicare to allow larger files to be uploaded. Ask your local Communicare administrator to change the settings to allow a document size of 2048kb with a resolution of 150. Changing the settings to anything larger than this can negatively impact the performance and speed of Communicare. If resolution is too low (i.e. Less than 1.5mb), then photos cannot be adequately assessed.
Generating a List of Clients Requiring Assessment of Retinal Photos

1. Select Report from the Communicare toolbar. Go to Recalls | Recalls Due, and select ‘Yes’.

2. Enter the Report Parameters and select ‘OK’ to generate the report.

A report listing all of the client’s names who have a recall due or overdue for ‘Photography assessment;retinal’ will be generated.

Alternatively, this report can be automatically scheduled to a specific provider(s) email address on a regular basis e.g. fortnightly. Speak to your local Communicare administrator to arrange for this to be set up.
Retinal Photograph Assessment Clinical Item

The assessment clinical item should be completed by a practitioner qualified to assess retinal images.

Qualified practitioners are:

- Any practicing secondary eye health professionals – i.e. optometrists, orthoptists, ophthalmologists.

- Any qualified primary health practitioners who have successfully completed the nationally accredited training Diabetic Retinopathy Assessment: A Training Course for GPs run by the Centre For Eye Health (CFEH).

These are primarily GPs, but may also include nurse practitioners, Aboriginal health workers, Aboriginal health practitioners, or other nominated clinic staff, provided they have successfully completed the above mentioned training.

1. The ‘Photography assessment;retinal’ recall will have been generated upon completion of the ‘Photography;retinal’ clinical item. Double click on the recall in the client’s ‘To Do’ list and select to ‘Complete It’ (see next page).
2. The clinical item will appear. The ‘Photography assessment;retinal’ clinical item facilitates the documentation of the assessment of the retinal photo, recording the degree of retinopathy, if any, and the recommended course of action.
   
   This should be followed by claiming the appropriate MBS item and making the recommended eye health referrals if required. See pages 19-22 for details on documenting a referral.

3. Complete the fields as necessary and select ‘Save’.
Medicare Billing for Retinal Photography

There are two MBS items used for the billing of retinal photography services detailed as follows.

It is suggested that on completion of the ‘Photography assessment;retinal’ clinical item, the MBS item number 12325 is defaulted. Talk to your local Communicare administrator to arrange this.
## Retinal Photography Medicare Billing Items [13]

### MBS: 12325 (Aboriginal and Torres Strait Islander)

Assessment of visual acuity and bilateral retinal photography with a non-mydriatic retinal camera, including analysis and reporting of the images for initial or repeat assessment for presence or absence of diabetic retinopathy, in a patient with medically diagnosed diabetes, if: (a) the patient is of Aboriginal and/or Torres Strait Islander descent; and (b) the assessment is performed by the medical practitioner (other than an optometrist or ophthalmologist) providing the primary glycaemic management of the patient’s diabetes; and (c) this item and item 12326 have not applied to the patient in the preceding 12 months; and (d) the patient does not have: (i) an existing diagnosis of diabetic retinopathy; or (ii) visual acuity of less than 6/12 in either eye; or (iii) a difference of more than 2 lines of vision between the 2 eyes at the time of presentation.

### MBS: 12326 (Non – Aboriginal and Torres Strait Islander)

Assessment of visual acuity and bilateral retinal photography with a non-mydriatic retinal camera, including analysis and reporting of the images for initial or repeat assessment for presence or absence of diabetic retinopathy, in a patient with medically diagnosed diabetes, if: (a) the assessment is performed by the medical practitioner (other than an optometrist or ophthalmologist) providing the primary glycaemic management of the patient’s diabetes; and (b) this item and item 12325 have not applied to the patient in the preceding 24 months; and (c) the patient does not have: (i) an existing diagnosis of diabetic retinopathy; or (ii) visual acuity of less than 6/12 in either eye; or (iii) a difference of more than 2 lines of vision between the 2 eyes at the time of presentation.
Referrals

It may be necessary for a client with reduced visual acuity to be reviewed by a GP in the first instance. Follow local protocols if this is the case.

The client may also need a referral to an optometrist or ophthalmologist following an eye check or the assessment of a retinal photo. This process will vary depending on whether the optometrist/ophthalmologist visits the service or not. Outlined below are the most common ways to make a referral to a visiting provider and to an external provider. Note that this process may vary at each health service, so please check local procedures/recall names before following these directions.

Referring a Client to a Visiting Optometrist/Ophthalmologist

The most common way to make a referral to an optometrist or ophthalmologist who visits the health service is to set a recall.

1. Select the Recall icon at the top of the client’s clinical record.
2. If a drop down list appears, select the appropriate recall from the list.
   If an appropriate recall is not found on the list, select the ‘Browse all item types’ option. This will launch the Clinical Terms Browser where you can search for and select the appropriate recall.
3. Select the planned date for the recall.
4. The recall will now appear in the client’s ‘To Do’ list.
Referring a Client to an External Optometrist/Ophthalmologist

1. In the client’s clinical record, select the Clinical Item icon.

2. This will launch the Clinical Terms Browser.

3. Under the Keyword tab, start typing REFER OP as a keyword to locate ‘Referral;ophthalmologist’ and ‘Referral;optometrist’.
4. Select the desired referral type you wish to add and complete the appropriate qualifiers. It is acceptable to leave qualifiers blank if they are unknown, or not required/necessary.

5. Once the required information has been filled out, select 'Save & Write Letter'.

6. Select the referral template you wish to use. Unless there is a specific optometrist/ophthalmologist template, the most appropriate option is likely to be 'Referral Letter (Standard)'.

Note: Leave blank until the referral is complete.
7. Change the Comment to the specific referral type that has been made (e.g. **Referral Letter - Ophthalmologist**) – this will make it easier to find in the client’s clinical record.

8. Change the Topic to ‘Eye’.

9. Record any necessary information in the referral letter and select ‘Send Secure’, ‘Print & Save’ or ‘Save’ as required.

Once the referral has been entered, it will be displayed in the ‘To Do’ list, until the ‘Referral Complete’ qualifier has a date entered. It will also populate the progress notes, and can be searched for in the Detail tab of the client’s clinical record.
Visiting Optometrist/Ophthalmologist Documentation in Communicare

The Client’s Clinical Record

When you first open a client’s clinical record, it will open on the **Main Summary**. A lot of useful information can be found here.

1. Here you will find any **Active Problems/Significant History** for the client, such as whether they have diabetes.

2. Here you will find the **latest values recorded for certain qualifiers**. You can double click on any of these to see a history of values recorded.

3. Here you will find **overdue** as well as **upcoming recalls and/or referrals**.
Searching a Client’s Clinical Record for Previous Documentation Regarding their Eyes

1. You can find all of the clinical items documented regarding a client’s eyes by going to the Detail tab.
2. Select to View Clinical Items By: ‘Topic’.
3. Then select ‘Eye’. You can right click on any of the items here and select ‘find associated service details’.

This will take you to the place in the client’s clinical record where the progress note was written, including details of who recorded the service and any accompanying notes.
Both optometrists and ophthalmologists have dedicated clinical items in Communicare, titled ‘Check up;optometrist’ and ‘Check up;ophthalmologist’ respectively. To locate these:

1. Within the client’s clinical record, first check the ‘To Do’ list. Many clients will have a recall for ‘Check up;optometrist’ or ‘Check up;ophthalmologist’.

If there is an appropriate recall in the ‘To Do’ list:

2. Double click on the recall.

3. The ‘Manage Recall’ screen will appear. Select to ‘Complete it’ and the clinical item will appear.

If there is a NOT an appropriate recall in the ‘To Do’ list, follow steps 4 and 5 on page 26
4. If there is not an appropriate recall in the ‘To Do’ list, select the Clinical Item icon.

5. This will launch the Clinical Terms Browser. Enter OPTOM or OPHTHAL as a keyword to locate the appropriate clinical item. Double click to select.

6. Upon completion of both the ‘Check up;optometrist’ and ‘Check up;ophthalmologist’ clinical items, a recall will be triggered for one years’ time.

7. You can change the ‘Planned date’ of the recall if the check up needs to be completed sooner than in one years’ time.

8. Select ‘Save’ OR if the client does not require a recall, select ‘Cancel’.
Documenting a Diagnosis

It is important that any conditions discovered are formally documented in the client’s clinical record. To do this:

1. Select the Clinical Item icon.

2. This will launch the Clinical Terms Browser. Begin typing the name of the condition that you want to record (e.g. Cataract).

3. Double click to select the appropriate clinical item.

4. If it is a major/ongoing condition that all clinical staff should know about immediately upon opening the client’s clinical record, tick ‘Display on Main Summary’ and ‘Display on Obstetric Summary’ (if applicable) and ‘Save’ the clinical item.
Retinal Photography MBS Flowchart

The flowchart below provides information to support Aboriginal health workers, Aboriginal health practitioners, registered nurses and general practitioners to optimise Medicare Benefits Scheme (MBS) revenue for clients with Diabetes using new retinal photography item numbers (MBS item numbers 12325 and 12326).

Client has Diabetes

Has client had an annual retinal screen?  
Check client’s Communicare clinical record to determine if they have had an eye specialist review and/or a retinal photograph taken in the last 12 months.

Yes → Retinal Photography not required

No → Does the client have previously diagnosed Diabetic Retinopathy?

Yes → Perform Visual Acuity Test

Does the client have visual acuity worse than 6/12 in either eye, OR a difference of more than two lines on the vision chart between the two eyes?

Yes → Perform Retinal Photography

No → Client eligible for retinal photograph every 24 months

MBS 12326 – $42.50

No → Client eligible for retinal photograph every 12 months

MBS 12325 – $42.50

Yes → Client not eligible for retinal photography under MBS items 12325 or 12326

Refer to optometrist/ophthalmologist for annual comprehensive eye examination

Yes → Perform Visual Acuity Test

Does the client have visual acuity worse than 6/12 in either eye, OR a difference of more than two lines on the vision chart between the two eyes?

Yes → Perform Retinal Photography

No → Client has Diabetes

Yes → Does the client identify as Aboriginal and/or Torres Strait Islander?

Yes → Client eligible for retinal photograph every 12 months

MBS 12325 – $42.50

No → Client eligible for retinal photograph every 24 months

MBS 12326 – $42.50

No → Refer to optometrist/ophthalmologist for annual comprehensive eye examination
Appendix 1 – Diabetic Retinopathy Guide

The following staging guidelines and referral recommendations are adapted from the International Clinical Diabetic Retinopathy and Diabetic Macular Edema Disease Severity Scales, the National Health and Medical Research Council (NHMRC) Guidelines for Management of Diabetic Retinopathy and A guide for General Practitioners on the use of Digital Retinal Photography developed by Optometry Australia (OA).

**No Diabetic Retinopathy**

**SIGNS**
No diabetic retinopathy seen

**MANAGEMENT**
Refer for a comprehensive examination with an optometrist within 1 year

**Mild Diabetic Retinopathy**

**SIGNS**
Microaneurysms (m): small outpouchings of the blood vessel walls – appear as small red spots

**MANAGEMENT**
Refer to an optometrist within 3 months

**Moderate Diabetic Retinopathy**

**SIGNS**
- Microaneurysms (m)
- Haemorrhages (h): bleeding due to damaged blood vessels – can be flame, dot or blot shaped
- Hard exudates (e): fatty deposits due to leakage of blood vessels and swelling of the retina – well defined yellow lesions or spots
- Cotton-wool spots (c): swelling of the nerve fibre layer due to reduced oxygen – appear fluffy white
- Blood vessel changes (b): due to reduced oxygen supply – blood vessels appear irregular and may loop

**MANAGEMENT**
Refer to an optometrist* or ophthalmologist** within 3 months

*OA **NHMRC
Severe Diabetic Retinopathy

SIGNS
As with moderate diabetic retinopathy, but more widespread microaneurysms, haemorrhaging, blood vessel changes (b), exudate (e), and/or cotton wool spots

MANAGEMENT
Refer to an ophthalmologist within 4 weeks

Proliferative Diabetic Retinopathy

SIGNS
• Neovascularisation (inset): new blood vessels prone to leakage – appear fan-like and feathery
• Pre-retinal haemorrhage (p): bleeding in front of the retina – typically well-defined and dark coloured
• Vitreous haemorrhage (v): bleeding into the jelly inside the eye – appears hazy in front of the retina

MANAGEMENT
Refer to an ophthalmologist within 1 week

Macular Oedema

SIGNS
• Macular oedema: swelling of the macula characterised by the presence of hard exudate (e) in the macula area
• Can occur at ANY stage

MANAGEMENT
Refer to an ophthalmologist within 4 weeks

National Health and Medical Research Council Guidelines for Management of Diabetic Retinopathy (2008)
Optometry Australia A guide for General Practitioners on the use of Digital Retinal Photography (2017)
References


Cover Artwork Reference

Paitya Miina

Illustrated by Allan Sumner, the cover artwork is a visual story about AHCSA’s Eye Health Program. The title of the illustration is ‘Paitya Miina’, a Kaurna word meaning ‘Deadly Eyes’. The artwork depicts the journey of how the AHCSA Eye Health Program will assist and support the development and enhancement of eye health services and program. This will ensure Member Services have the capacity to identify, monitor, manage and resolve poor eye health for clients. The ultimate goal is to ensure better eye health outcomes for Aboriginal and Torres Strait Islander People.
Diabetic retinopathy among Aboriginal and Torres Strait Islander people

Key facts

Diabetic retinopathy (DR) can damage the eyes of people with diabetes before they notice vision problems.

1 in 10 Aboriginal and Torres Strait Islander adults with diabetes* experience vision-threatening DR

*adults 40 years and over with known diabetes

Health centre staff can help patients with diabetes prevent severe vision loss from DR by

- supporting them to manage their diabetes
- conducting/referring them for yearly eye checks
- referring them for specialist care if needed
- supporting them to complete treatment

Research tells us that among Aboriginal and Torres Strait Islander people with diabetes

- ½ don’t receive yearly eye checks
- ¼ have never had one

But there is good news!

- Yearly eye checks have increased
- Vision loss from DR has decreased

Increasing retinal screening and improving access to eye care can lead to better eye health!

Source:


For more information see the key facts and animated infographic about DR that are available on the HealthInfoNet’s Eye Health Portal: healthinfonet.ecu.edu.au/learn/health-topics/eye-health/diabetic-retinopathy

updated August 2018
Diabetic retinopathy (DR) is a serious eye problem that can develop in people with diabetes and can lead to vision loss and blindness. It can damage the eye before people know they have diabetes or experience any problems with their vision.

The good news is:
- Up to 98% of severe vision loss and blindness from DR can be prevented if people receive recommended eye checks and treatment.
- Aboriginal and Torres Strait Islander people with diabetes are now more likely to receive yearly eye checks than in the past and are less likely to experience vision loss due to DR.

But despite signs of progress:
- Aboriginal and Torres Strait Islander people are still at greater risk of developing diabetes and DR than non-Indigenous people.
- For Aboriginal and Torres Strait Islander people with diabetes, only half will have received their last yearly eye check for DR, and a quarter will never have had one.

Now it is important that:
- Aboriginal and Torres Strait Islander people are supported to manage their diabetes and get yearly eye checks so that DR is detected early.
- Yearly eye checks include: a medical history, vision test, retinal examination, and referral if specialist eye care is needed.
- People with DR are given information about eye care pathways and are supported to seek specialist treatment at the right time.

How does diabetic retinopathy occur?
- DR occurs when chronic high blood sugar levels result in changes in blood flow that damage small blood vessels in the retina of the eye. The blood vessels can leak and bleed, abnormal blood vessels can grow, and retinal detachment can occur.
- DR usually affects both eyes and progresses over time through the early (non-proliferative) stages—which are usually asymptomatic (have no symptoms) —to the late (proliferative) stage when severe vision loss can occur.
- When symptoms of vision loss occur they include: spots, floaters, blank areas or dark areas in the visual field.
- DR can lead to an eye condition called diabetic macular oedema that can cause blurry vision at any stage of DR.

For more info: Diabetes eye health: a guide for health care professionals (International Diabetes Federation and The Fred Hollows Foundation, 2015)
Who gets diabetic retinopathy?

- All people with type 1 and type 2 diabetes are at risk of developing DR and the longer they have diabetes the greater the risk.
- Aboriginal and Torres Strait Islander people are three times more likely to have diabetes, which puts them at greater risk of developing DR.
- People with poorly controlled blood sugar, blood pressure and cholesterol levels are more likely to develop DR.

For more stats: [The National Eye Health Survey 2016 report](https://www.indigenous-eye-health.net/) (Foreman, et al., 2016)

How to prevent vision loss from diabetic retinopathy

People with diabetes need:

- education and lifestyle advice to encourage healthy eating habits and regular exercise
- eye checks when diabetes is diagnosed and regular eye checks afterwards
- medication, if prescribed by a medical practitioner, to control blood sugar, blood pressure and blood cholesterol levels
- early detection of DR and treatment at the right time.

Communities need education about DR.

For more info: [Diabetes eye health: a guide for health care professionals](http://www.idf.org) (International Diabetes Federation and The Fred Hollows Foundation, 2015)

How to detect diabetic retinopathy

- There are no symptoms in the early stages of DR, so regular eye checks are needed for detection before it progresses to a stage when serious vision loss and blindness can occur.
- [NHMRC guidelines](http://www.nhmrc.gov.au) recommend that Aboriginal and Torres Strait Islander people with diabetes have an eye check every year (eye checks for non-Indigenous people are recommended every two years).
- As DR progresses and damage to the retina increases, people may need to have their eyes checked more often.
- Retinal examinations can be carried out by a health worker, nurse or doctor in a primary health care setting if there is a special digital camera available that takes photographs of the retina.
- Retinal examinations can also be carried out by eye specialists (optometrists or ophthalmologists) using a digital camera, ophthalmoscope or slit-lamp.

For more info about DR screening: [Check Today, See Tomorrow: diabetic retinopathy screening card](http://www.indigenous-eye-health.net/) (Indigenous Eye Health Unit, 2015)

1. Based on crude figures for Indigenous adults aged 40 years and over and non-Indigenous adults aged 50 years and over.

Aboriginal and Torres Strait Islander adults with diabetes are 2x as likely to have vision impairment from DR as non-Indigenous adults with diabetes.

Images of the retina

- Normal
- Abnormal
- Sight-threatening

Source: [Indigenous Eye Health](http://www.indigenous-eye-health.net/)

© 2016 Australian Indigenous HealthInfoNet
How to treat diabetic retinopathy

- At all stages of DR, people need to manage their diabetes and get regular eye checks.
- During the early stages of DR, no treatment is needed unless diabetic macular oedema occurs.
- Laser treatment (photocoagulation) is the main form of treatment when DR progresses.
- If a person has already lost sight from DR, laser treatment will only help to maintain the sight that is left—it cannot restore lost sight.
- More complicated cases may need eye surgery (vitrectomy).
- Injection of medication into the eye (intravitreal injection of anti-VEGF medication) is a relatively new treatment option for some cases.

Delivering eye care for diabetic retinopathy

Primary health care can support patients to manage their diabetes and access care for their eyes by:

- incorporating yearly eye checks into patient management plans
- establishing a patient recall system to identify and remind all diabetes patients about their yearly eye checks
- conducting eye checks (or referring patients to an eye specialist to have one)
- referring patients with DR or vision impairment to an eye specialist for further assessment and management
- supporting patients after referral to: make appointments, complete treatment, and attend appointments for follow-up and review
- providing information about referral pathways to help people with DR get specialist care when they need it.

Since 1 November 2016, primary health care services have had access to an Aboriginal and Torres Strait Islander specific MBS item (12325) to support screening for DR using a retinal camera.

The Integrated Team Care (ITC) Program helps Aboriginal and Torres Strait Islander people access culturally appropriate primary health care and provides care coordination services to people who need multidisciplinary care for chronic disease, including DR.

Outreach optometry and ophthalmology services are delivered to people living in regional, rural and remote areas through the Visiting Optometrists Scheme (VOS) and the Rural Health Outreach Fund (RHOF).

Fully equipped vans—like the Lions Outback Vision Van in Western Australia and the IDEAS Van in Queensland—give rural and remote Australians access to specialist eye care. The vans are a mobile treatment centre offering comprehensive optometry and ophthalmology care, including the treatment of DR.
More information about eye care for diabetic retinopathy

**Health practice resources**

**Check Today, See Tomorrow** [resource kit] (Indigenous Eye Health Unit, 2015):
- Diabetes eye care flipchart
- Messages and adult eye check
- Diabetic retinopathy screening card


**Guidelines for the management of diabetic retinopathy** [report] (National Health and Medical Research Council, 2008)

**Training resources**

**Diabetic retinopathy grading** [online course] (Indigenous Eye Health Unit and Centre for Eye Research Australia, updated 2016)

**Eye health and diabetes** [online module] (Remote Area Health Corps)

**Primary eye care checks** [online module] (Remote Area Health Corps)

**Health promotion resources**

**Aunty Mary’s story** [video] (Guide Dogs NSW/ACT, Hooker M, 2013)

**Bad sugars, bad eyes** [video] (Lions Outback Vision, 2012)

**Check Today, See Tomorrow** [resource kit] (Indigenous Eye Health Unit, 2015):
- Diabetes eye care brochure
- Urban, rural and remote posters
- Multimedia resources

These key facts are available online at: [www.healthinfonet.ecu.edu.au/other-health-conditions/eyeworkers/diabetic-retinopathy/key-facts](http://www.healthinfonet.ecu.edu.au/other-health-conditions/eyeworkers/diabetic-retinopathy/key-facts)

**The Eye Health web resource**

- These key facts have been developed by the Australian Indigenous HealthInfoNet and The Fred Hollows Foundation and are available on the HealthInfoNet’s Eye Health web resource: [www.eyehealth.org.au](http://www.eyehealth.org.au).
- The Eye Health web resource provides health professionals with the latest information and research to inform their everyday practice. It includes an extensive collection of information and resources about the eye health of Aboriginal and Torres Strait Islander people, a workforce portal (a selection of plain language information for health care providers) and a yarning place (an online network to help people connect).
- The health workforce is encouraged to contribute to the development of the Eye Health web resource by sharing knowledge and experience and suggesting new materials for inclusion: [www.healthinfonet.ecu.edu.au/contact/share_info](http://www.healthinfonet.ecu.edu.au/contact/share_info).

**Australian Indigenous HealthInfoNet**

- **Address:** Edith Cowan University
  2 Bradford Street
  Mt Lawley WA 6050

- **Eye health email:** eyehealth@healthinfonet.org.au
- **General email:** healthinfonet@ecu.edu.au
- **Phone:** (08) 9370 6336
- **Yarning place:** [www.yarning.org.au/group/12](http://www.yarning.org.au/group/12)
- **Website:** [www.eyehealth.org.au](http://www.eyehealth.org.au)
Strengthening health systems to manage diabetic eye disease: Integrated care for diabetes and eye health

Every person with diabetes is at risk of going blind. At any time around a third of people with diabetes have some form of eye health complication, with devastating and wide-ranging social and economic impacts on people living with diabetes, their families and communities.

To address the growing burden of diabetic eye disease, our organisations encourage urgent action from governments, medical associations, service providers and patient organisations to:

1. Integrate eye health within routine diabetes care by primary health care providers
2. Improve collaboration across the diabetes and eye health sectors
3. Foster and support patient-centred care approaches for diabetic eye health
Diabetic Eye Disease – a growing global threat

With the number of people developing diabetes rising sharply around the world, in both developed and developing economies, the global burden of diabetic eye disease and vision impairment will continue to increase. Without effective urgent action, this has the potential to cripple already overwhelmed health systems – particularly in low and middle income countries where 75% of people with diabetes live, and where diabetes is growing most rapidly.¹

Early preventative action is being impeded

Almost all vision impairment and blindness from diabetic eye disease can be prevented through effective diabetes management, early detection of eye problems through regular eye exams, and timely treatment.²

Frequently, however, eye health remains outside of mainstream primary diabetes care and is left to eye health specialists where it is difficult to access from the community level. Many people with diabetes – as well as many health professionals – are unaware that diabetes can cause vision impairment and irreversible blindness, and do not undergo regular eye examinations. Limited awareness, combined with financial and geographical barriers for patients to access needed services, and uneven distribution of skilled personnel and equipment, all impede access to vital sight-saving services, particularly for people in rural and remote areas.

Recommendations for action

Our organisations urge strong, innovative action and improved collaboration across the health system to overcome current barriers and bring eye health to the frontline of diabetes care:

1. **Integrate eye health in routine diabetes care by primary health care providers**

Appropriately trained primary health and diabetes professionals are most likely to have the opportunity to educate at risk patients, provide or facilitate essential regular eye examinations as part of routine care for people with diabetes, and ensure people with diabetic eye disease or vision complications are guided to access specialist eye services for timely treatment and follow up.

Increasing eye health assessments at the primary care level, through the empowerment and appropriate training for primary health and diabetes care personnel will help to improve patient access and overall assessment rates, cut wait times and reduce unnecessary referrals to specialist care.³ This will also enable specialist eye health practitioners to focus on treatment, rather than examination.

**Enabling effective integration of eye health and routine diabetes care requires action to:**

- **Ensure eye assessments are part of the routine diabetes care for people living with diabetes.**
- **Strengthen human resources through increased investment in appropriate diabetic eye health training and tools for primary health and diabetes care professionals.**
- **Develop and strengthen laws, policies and guidelines that support integrated approaches, promote appropriate task shifting from eye health specialists to trained primary health professionals, and provide context and culturally-appropriate guidance to service providers.**


2. Improve collaboration across the diabetes and eye health sectors
Far too often, general diabetes care on one side, and the prevention, treatment and rehabilitation of diabetes complications such as diabetic eye disease on the other are addressed independently by different specialist health cadres and strategies.

• Reduce financial barriers to access, including ensuring, for example, that diagnostic tests and treatment for diabetic eye disease are included in health financing models that promote Universal Health Coverage.

• Scale up infrastructure including compatible e-health systems at different levels of healthcare and increase investment in the development of more cost effective, sturdy and automated technologies for assessment, referral, and treatment.

3. Foster and support patient-centred care approaches for diabetic eye health
Patient perspectives on diabetes, acceptability of available healthcare services and perceived benefits of treatment are critical determinants in effective early detection, treatment and management of diabetic complications.

A more holistic approach to addressing diabetes and all its complications, including diabetic eye disease, would help to break down these silos and promote meaningful cross-sectoral coordination, specialist expertise and information exchange. This could reduce unnecessary duplication of efforts, and advance more efficient, flexible and optimised models of care for people with diabetes.

Strengthening this collaboration requires stronger partnerships between actors in the eye health and diabetes sectors to develop joint strategies, improve robust referral pathways, exchange knowledge and expertise, and define their integrated responsibilities in supporting people with diabetes.

Health strategies for the detection and treatment of diabetic eye disease need to be set up in a way that starts from the perspective and the needs of a person diagnosed with diabetes. Strategies should prioritise approaches to reduce patient costs and distances to services, as well as ensuring that information, education and services are provided in a culturally acceptable and context appropriate manner and language for patients. People with diabetes are entitled and should be empowered to make informed decisions about their care, how they can access appropriate treatment, follow up and support systems they want to use.
With strategic investment and leadership, we can reduce the burden of diabetic eye disease.
In some countries such as the United Kingdom, where governments have made the commitment to prioritise access to good quality diabetic eye care for all citizens, diabetic eye disease is no longer the leading cause of blindness among working age people.

Addressing this growing threat on a global scale requires similar commitment from all stakeholders to ensure that accessible, affordable, appropriate and safe eye care services become an integral part of diabetes management, care and support for all people with diabetes.

Eye screening is a quick way to detect eye problems and can be conducted by a range of trained health care professionals, including: Aboriginal and Torres Strait Islander Health Workers and Practitioners, eye health workers (EHWs), regional eye health coordinators (REHCs), nurses and general practitioners (GPs), and optometrists.

Eye checks are an important part of broader preventive health efforts like:

- health assessments for Aboriginal and Torres Strait Islander people
- chronic disease management.

When conducting eye checks, health care professionals conduct different types of eye screening. Eye checks usually include:

- taking the patient’s case history
- screening for visual acuity (measuring refractive error i.e. distance/near vision)
- checking the structure of the eyes for abnormalities.

Depending on the patient’s age and needs, and the training and resources available to the health care professional, eye checks may also include:

- screening for infant red reflex
- screening for cataract
- screening for diabetic retinopathy (DR) if patients have diabetes
- screening for trachoma (in children) and trichiasis (in adults) in parts of the country where active trachoma persists
- screening for trichiasis (in adults) if they grew up in a trachoma area but now live elsewhere
- treatment for minor eye injuries
- appropriate referral if further eye assessment and/or care is needed.

Linked and coordinated eye care services are needed to help patients complete the eye care journey from:

- the primary health care professional working in a community-based health centre
- to the optometrist working in a private practice or providing visiting services
- to the ophthalmologist providing visiting services, conducting surgical blitzes or working in a hospital.

Complications from some health conditions (e.g. diabetes) can result in severe vision loss and blindness that can be prevented if people receive regular eye checks, relevant eye screening and care.

It's important that Aboriginal and Torres Strait Islander children and adults are supported to get regular eye checks and navigate the treatment pathway.

Healthinfonet.ecu.edu.au/eye-health

For more information see our longer factsheet

©Australian Indigenous HealthInfoNet 2019

Aboriginal and Torres Strait Islander people begin life with generally very good vision—on average better than non-Indigenous people—but in adulthood, rates of blindness increase at an earlier age than for non-Indigenous people.

Complications from some health conditions (e.g. diabetes) can result in severe vision loss and blindness that can be prevented if people receive regular eye checks, relevant eye screening and care.

It's important that Aboriginal and Torres Strait Islander children and adults are supported to get regular eye checks and navigate the treatment pathway.
Aboriginal and Torres Strait Islander people begin life with generally very good vision—on average better than non-Indigenous people—but in adulthood, rates of blindness increase at an earlier age than for non-Indigenous people.

It’s important that Aboriginal and Torres Strait Islander children and adults are supported to get regular eye checks and navigate the treatment pathway.

Eye screening and care: what’s it all about?

Eye screening is a quick way to detect eye problems and can be conducted by a range of trained primary health care (PHC) professionals, including: Aboriginal and Torres Strait Islander Health Workers and Practitioners, eye health workers (EHWs), regional eye health coordinators (REHCs), nurses and general practitioners (GPs).

When eye checks indicate that patients have reduced vision, diabetes and/or complex eye conditions, PHC professionals refer them to an optometrist or an eye specialist (ophthalmologist) if a more comprehensive eye exam and treatment may be needed. Optometrists can correct vision problems with glasses or contact lenses, while specialist eye doctors (ophthalmologists) can also treat eye diseases with medication and/or surgery.

Other PHC professionals can also play an important role in encouraging patients to get eye checks, including: health promotion officers, diabetes educators, and chronic disease care coordinators.

Eye care often involves different health professionals, seen at different times, in different locations. However, in remote areas and within some Aboriginal and Torres Strait Islander Community Controlled Health Services, PHC professionals and visiting optometry and/or ophthalmology teams work together to provide eye care in the health centre, or in a mobile vision van (a specialist treatment centre on wheels).

Complications from some health conditions (e.g. diabetes) can result in severe vision loss and blindness that can be prevented if people receive regular eye checks, relevant eye screening and care.
Meet the eye health professionals!

Eye health workers (EHWs): are health workers (including Aboriginal and Torres Strait Islander Health Workers and Practitioners) who have had some eye care training. They work with regional eye health coordinators, perform eye checks and some eye care, and make referrals if further eye assessment is needed. Not all regions of Australia have EHWs.

Optometrists: can screen for eye disease and vision disorders, prescribe glasses or contact lenses to correct vision and refer to an ophthalmologist if needed. Please note that optometrists are not medical doctors.

Regional eye health coordinators (REHCs): have different roles in different parts of Australia, but they focus on coordinating eye care services across the region to increase access to improved eye care. Some also have clinical roles associated with eye checks and care. Not all regions of Australia have REHCs.

Ophthalmologists (eye doctors): are medical doctors who specialise in eye care. They can screen and diagnose and treat eye problems, prescribe medications and perform surgery.

What eye screening is done during an eye check?

Eye checks are an important part of broader preventive health efforts like:
- health assessments for Aboriginal and Torres Strait Islander people
- chronic disease management.

When conducting eye checks, PHC professionals conduct different types of eye screening. Eye checks usually include:
- taking the patient’s case history
- screening for visual acuity (measuring refractive error i.e. distance/near vision)
- checking the structure of the eyes for abnormalities.

Depending on the patient’s age and needs, and the training and resources available to the PHC professional, eye checks may also include:
- screening for infant red reflex
- screening for cataract
- screening for diabetic retinopathy (DR) if patients have diabetes
- screening for trachoma (in children) and trichiasis (in adults) in parts of the country where active trachoma persists
- screening for trichiasis (in adults) if they grew up in a trachoma area but now live elsewhere
- treatment for minor eye injuries
- appropriate referral if further eye assessment and/or care is needed.

Making referrals for further eye assessment and care

PHC professionals make different referrals according to the type and urgency of the eye condition, but it is usually more efficient and appropriate for referrals to go through an optometrist. Referral to an ophthalmologist is usually only necessary when specialist treatment for an eye condition is needed.

Seeing an optometrist doesn’t need an official referral, but PHC professionals can write a referral letter for their clients if optometric care is needed. Only optometrists and GPs can refer patients to an ophthalmologist.

After treatment by an ophthalmologist, PHC professionals should receive a report providing a complete history of the patient’s eye care. This way a recall can be sent to the patient when follow-up eye screening and care is needed.

PHC professionals can play a key role in supporting their patients to complete treatment. It is important that PHC professionals follow-up with their patients along the eye care journey, and that eye health professionals report back to the health centre about the eye care provided.

Helping patients along the treatment pathway

Early detection, prompt referral, and appropriate treatment can prevent or reduce the impact of many eye problems, but the treatment pathway can be confusing, especially when it involves different health professionals, seen at different times, in different locations—and it is common for patients to drop out along the way.

Linked and coordinated eye care services are needed to help patients complete the eye care journey from:
- the primary health care professional working in a community-based health centre
- to the optometrist working in a private practice or providing visiting services
- to the ophthalmologist providing visiting services, conducting surgical blitzes or working in a hospital.
Sources


More information

**Online education**
- Diabetic retinopathy grading course (Indigenous Eye Health and Centre for Eye Research Australia)
- eLearning modules (Remote Area Health Corps):
  - Primary eye care checks
  - Eye health and diabetes
  - Trachoma
- Eye and vision care toolkit (Brien Holden Vision)
- Retinal camera training for primary health care workers (Brien Holden Vision Institute)

**Guidelines**
- Guidelines for the management of diabetic retinopathy (National Health and Medical Research Council)
- Trachoma: CDNA national guidelines for the public health management of trachoma (Communicable Disease Network Australia)

**Education and other resources**
- Check Today, See Tomorrow: resource package (Indigenous Eye Health)
  - MBS item 715/12325 eye check card
- Diabetic eye screening: education resource for Aboriginal Health Workers (Lions Outback Vision)
- Outback Vision diabetic retinopathy: video (Lions Outback Vision)
- Provision of Eye Health Equipment and Training: project information (Brien Holden Vision Institute)

**Manuals and guides**
- CARPA standard treatment manual: a clinic manual for primary health care practitioners in remote and Indigenous health services in central and northern Australia: eye assessment (Central Australian Rural Practitioners Association)
- Chronic conditions manual: prevention and management of chronic conditions in Australia: Child and adult health checks (eyes and vision) (Rural and Remote Clinical Support Unit, Torres and Cape Hospital and Health Service)
- Clinical procedures manual for remote and rural practice: supporting clinical practice in the bush: checking near and distance vision (CRANAplus)
- National guide to a preventive health assessment for Aboriginal and Torres Strait Islander people: eye health (National Aboriginal Community Controlled Health Organisation, Royal Australian College of General Practitioners)
  - Visual acuity
  - Trachoma and trichiasis

This factsheet has been developed by the Australian Indigenous HealthInfoNet and The Fred Hollows Foundation. This and other multimedia resources are available on the HealthInfoNet's Eye Health webpage: healthinfonet.ecu.edu.au/eye-health.

Special thanks to Dr Kristopher Rallah-Baker and Dr Madeleine Adams for their advice and input in the development of this factsheet.

©Australian Indigenous HealthInfoNet 2019

©CRANAplus
Do you know all the things that an optometrist can do?

As primary healthcare professionals, registered optometrists must have completed an approved university degree to be able to practice. All entry-level optometrists are now also able to prescribe topical medicines for the clinical management of acute and chronic eye conditions and ocular disease. Many optometrists have also undertaken postgraduate qualifications to obtain this endorsement, with approximately half of the optometry workforce now therapeutically endorsed. Optometrists are registered with the Australian Health Practitioner Regulation Agency.

SERVICES

Optometrists are qualified and equipped to provide a comprehensive range of primary eye care services.

- Refractive testing and comprehensive vision examinations
- Prescription of glasses or contact lenses
- Assessment, management and referrals of ocular emergencies
- Assessment and treatment of vision problems in children
- Co-management and primary care monitoring of patients with ongoing eye conditions
- Primary eye care for management of patients with diabetes, including dilated fundus examination
- Visual acuity testing, slit lamp examination, visual fields testing
- Removal of embedded corneal foreign bodies
- Assessment and reporting for fitness to drive; credentialed optometrists are also able to undertake examinations for aviation licensing on behalf of CASA.

WHO DO OPTOMETRISTS WORK WITH?

Optometrists work with a wide variety of health practitioners and medical specialists. Patients with a referral from an optometrist are able to obtain Medicare rebates for ophthalmology services. Optometrists also communicate with general medical practitioners, and a range of health care workers including diabetologists and endocrinologists, paediatricians, neurologists, Aboriginal and Torres Strait Islander health workers, education psychologists and diabetes educators.

SCHEDULED MEDICINES

Endorsed optometrists use topical preparations of:

- antibiotics;
- anti-inflammatories;
- antivirals;
- glaucoma treatments;
- anti-allergy medications, and
- cycloplegics.

Therapeutically-endorsed optometrists are qualified and equipped to:

- examine, treat or refer patients with ocular disease, superficial infection and anterior eye disease
- triage and treat or facilitate management of ‘red eye’
- triage and manage ocular emergencies and embedded corneal foreign bodies
- provide primary care and prescription treatment for conditions such as dry eye and allergy
- assess/monitor and treat glaucoma in conjunction with ophthalmologists
- provide after-care for cataract and refractive surgery
- assess and treat infections or complications arising from contact lens use.
SPECIFIC PRACTITIONER EXPERIENCE

There are optometrists available with particular practice experience in:

- children’s vision
- contact lenses
- conditions such as ocular allergy and dry eye
- sports vision
- low vision
- eye health assessments and care in Indigenous community settings.

OPTOMETRY AND MEDICARE

A Medicare rebate is available for most optometry services. Bulk-billing is subject to individual practice policies. Patients are entitled to rebates for comprehensive eye examinations every three years (under 65) or annually (65 and over). There are also rebates for:

- dilated fundus examination in diabetic patients
- patients with new symptoms or signs of eye disease, or progressive changes in existing eye problems
- some contact lens prescribing
- visual fields in patients with suspicious symptoms
- corneal foreign body removal
- patient end support telehealth with ophthalmologists in rural/remote settings.

Services not covered by Medicare may attract a fee.

GLASSES AND CONTACT LENSES

Medicare does not pay for glasses or contact lenses. The Department of Veterans Affairs pays for glasses each two years for eligible patients. An optometrist can advise on state-based subsidy programs for low income earners and Indigenous people.

EQUIPMENT

Ask your community optometrist about the range of equipment and technologies they have available to get a comprehensive view of a patient’s eye health.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slit lamp</td>
<td>A biomicroscope for examining the anterior eye under high magnification</td>
</tr>
<tr>
<td>Phoropter/refractor head</td>
<td>Used to measure refractive error and best corrected visual acuity</td>
</tr>
<tr>
<td>Direct ophthalmoscope</td>
<td>Used to view the internal components of the eye; an essential for checking for changes and monitoring for cataract, retinal changes, and eye diseases.</td>
</tr>
<tr>
<td>Binocular indirect</td>
<td>Provides a 3D view of the posterior eye</td>
</tr>
<tr>
<td>ophthalmoscope</td>
<td>Retinoscope Used to measure refractive error and accommodation</td>
</tr>
<tr>
<td>Tonometer</td>
<td>A tonometer measures intraocular pressures (IOPs)</td>
</tr>
<tr>
<td>Keratometer</td>
<td>For measuring the shape of the cornea; an important piece of equipment for contact lens practitioners.</td>
</tr>
<tr>
<td>Fundus (retinal) camera</td>
<td>The retinal camera is used to take photos of the internal posterior eye, showing the retina, optic disc, arteries and veins. Retinal photos provide an important baseline and ongoing patient record for many conditions.</td>
</tr>
<tr>
<td>Visual fields analyser</td>
<td>Computerised visual fields testing (perimetry) is used in the assessment and management of glaucoma, as well as stroke or other neurological conditions affecting vision.</td>
</tr>
<tr>
<td>Gonioscope</td>
<td>This lens with prisms enables the optometrist to get a more complex and complete view of the inside of the eye, and the angle of the anterior chamber. This is an important tool in comprehensive glaucoma management.</td>
</tr>
<tr>
<td>Optical Coherence Tomographer (OCT)</td>
<td>Many optometrists use OCT to digitally image the optic nerve and retina. Optometrists may also refer patients for this service.</td>
</tr>
<tr>
<td>Corneal topographer</td>
<td>This accurately maps the cornea, and is frequently used in contact lens management or patients with keratoconus.</td>
</tr>
</tbody>
</table>

FIND AN OPTOMETRIST

![Image](www.optometry.org.au/)

- Find optometrists in your local area, use drop-down menu to identify therapeutically endorsed optometrists.
- Contact your Optometry Australia state body for information or referral for services including low vision services, subsidised spectacles schemes, or an optometrist with a particular area of clinical interest and experience.

PATIENT INFORMATION

![Image](www.goodvisionforlife.com.au)

For more information visit us at [www.optometry.org.au](http://www.optometry.org.au)