Improving adherence in glaucoma

A manual for pharmacists

Glaucoma Australia

UTS:PHARMACY
What is glaucoma?

Optic nerve damage progresses slowly and destroys vision gradually, initially affecting the peripheral vision. One eye compensates for the other, and the person remains unaware until the majority of nerve fibres have been damaged.
What is glaucoma?

A group of eye conditions in which the optic nerve linking the eye with the brain is progressively damaged, with resulting damage to the vision.

The main proven strategy to protect the optic nerve is to reduce eye pressure (IOP).
What is glaucoma?

- Current treatment can prevent disease progression
- Early detection and treatment adherence is ESSENTIAL
- Second leading cause of blindness
- 50% of glaucoma cases undetected

IOP is reduced medically, by laser or with surgery by reducing fluid inflow and/or increasing fluid outflow
Classification of glaucoma

Open angle glaucoma (POAG)

Angle closure glaucoma
• 80% of cases
• Symptomless in early stages
  • 2/3 patients ↑ IOP
  • 1/3 patients = IOP within normal range

Primary Angle Closure Suspect (PACS) raised IOP
• Primary Angle Closure (PAC)
• Primary Angle Closure Glaucoma (PACG)
Risk Factors

- Family history
- Age
- IOP levels

Others: Co-morbidities, Long-term corticosteroid use, Medications with anticholinergic effects

Encourage family members to be screened early:
First degree relatives should undergo ocular examination 5-10 years earlier than the age of diagnosis of their relative.
Glaucoma medications

Topical medication is the first management choice → Reduce IOP by enhancing aqueous outflow and/or reducing aqueous production.

- Prostaglandin Analogues
- Beta-Blockers
- Alpha2-agonists
- Carbonic Anhydrase Inhibitors
- Cholinergic Agonists
**First Choice**

<table>
<thead>
<tr>
<th>Preparation by Class and Generics</th>
<th>Mechanism of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prostaglandin Analogues</strong></td>
<td>↑ aqueous outflow</td>
</tr>
<tr>
<td>Latanoprost 0.005%</td>
<td></td>
</tr>
<tr>
<td>Travoprost 0.004%</td>
<td></td>
</tr>
<tr>
<td>Bimatoprost 0.03%</td>
<td></td>
</tr>
<tr>
<td>Tafluprost 0.0015% (0.3 mL unit doses)</td>
<td></td>
</tr>
</tbody>
</table>
## Current medication algorithm

### First Choice

<table>
<thead>
<tr>
<th>Preparation by Class and Generics</th>
<th>Mechanism of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beta-Blockers</strong></td>
<td>↓ aqueous production</td>
</tr>
<tr>
<td><strong>Non-Selective Agents</strong></td>
<td></td>
</tr>
<tr>
<td>Timolol:0.25%, 0.5%,</td>
<td></td>
</tr>
<tr>
<td>Timolol:0.1% Eye Gel</td>
<td></td>
</tr>
<tr>
<td><strong>Beta 1 - Selective Agents</strong></td>
<td></td>
</tr>
<tr>
<td>Betaxolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>Betaxolol 0.25% Suspension</td>
<td></td>
</tr>
</tbody>
</table>
### Second Choice

<table>
<thead>
<tr>
<th>Preparation by Class and Generics</th>
<th>Mechanism of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proprietary-Fixed Combinations</strong></td>
<td>As for individual components</td>
</tr>
<tr>
<td>brimonidine 0.2%/timolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>dorzolamide 2%/timolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>travoprost 0.004%/timolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>latanoprost 0.005%/timolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>brinzolamide 1%/ timolol 0.5%</td>
<td></td>
</tr>
<tr>
<td>bimatoprost 0.03%/ Timolol 0.5%</td>
<td></td>
</tr>
</tbody>
</table>
## Current medication algorithm

### Preparation by Class and Generics

<table>
<thead>
<tr>
<th>Alpha2-Agonists</th>
<th>Mechanism of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brimonidine 0.2%</td>
<td>↑ aqueous outflow +</td>
</tr>
<tr>
<td>Brimonidine 0.15%</td>
<td>↓ aqueous production</td>
</tr>
<tr>
<td>Apraclonidine 0.5%</td>
<td></td>
</tr>
</tbody>
</table>

| Carbonic Anhydrase Inhibitors            |                                          |
|------------------------------------------|                                          |
| **Topical**                              |                                          |
| Dorzolamide 2%                           | ↓ aqueous production                     |
| Brinzolamide 1%                          |                                          |

### Second Choice
## Third Choice

<table>
<thead>
<tr>
<th>Preparation by Class and Generics</th>
<th>Mechanism of Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carbonic Anhydrase Inhibitors</strong></td>
<td>↓ aqueous production</td>
</tr>
<tr>
<td><em>Systemic</em>+ Acetazolamide 250mg</td>
<td></td>
</tr>
<tr>
<td><strong>Cholinergics (Miotics)</strong></td>
<td>↑ aqueous outflow</td>
</tr>
<tr>
<td>Pilocarpine 1%, 2%, 4%</td>
<td></td>
</tr>
</tbody>
</table>
Pharmacist assessment of glaucoma medications

• Is this the patient’s first glaucoma treatment?
• Does this patient take more than one glaucoma medication?
• What other medications is this patient taking?
• Current medical conditions
• Does the patient have any allergies?
• Ease of administration
• Does the patient wear contact lenses?
• Is the patient pregnant or breastfeeding? Or planning on becoming pregnant?
Glaucoma management

IOP Lowering Therapy + Adherence = Prevention of Vision Loss
Collaborative Care of Glaucoma Patients

- Assessment prior to therapy
- Information
- Medication Advice
- Ongoing Support
- Provisional diagnosis
- Patient referral
- Definitive diagnosis
- Management plan
- Patient referral

Optometrist

- Information
- Medication Advice
- Ongoing Support

Pharmacist

- Assessment prior to therapy

GP

- Definitive diagnosis
- Management plan

Ophthalmologist
What can pharmacists do?

1. EARLY DETECTION:
   All patients > 50 - 2 yearly eye health checks

2. ONCE OPTIC NERVE DAMAGE OCCURS IT CANNOT BE REPAIRED:
   Explain the risk of visual loss

3. TREATMENT IS PREVENTATIVE:
   Ensure that patients understand the purpose of treatment

4. ADHERENCE TO LIFELONG TREATMENT IS CRITICAL TO PREVENT VISUAL LOSS:
   Educate, encourage and support on adherence
Counseling patients on medication induced angle closure

- Medications linked with acute angle closure crisis and raised IOP
- At risk patients should be advised to avoid these medications
- Acute angle closure may be misdiagnosed in patients using OTC anti-cold medications
- Visual difficulty and semi-dilated pupil may be clues to an attack of acute angle closure.
- Patients with signs or symptoms of angle closure = referred immediately to an ophthalmologist
Strategies for adherence in glaucoma patients

CONCEPTS AND TERMINOLOGY IN ADHERENCE
REASONS FOR NON-ADHERENCE IN GLAUCOMA
TYPES OF NON-ADHERENCE
GLAUCOMA ADHERENCE MODEL IN COMMUNITY PHARMACY
SUMMARY
Concepts and terminology in adherence

Adherence, compliance, concordance and persistence are terms commonly used to describe medication-taking behaviours.

<table>
<thead>
<tr>
<th>Concept</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>The extent to which a patient’s behaviour corresponds with recommendations from a health care provider</td>
</tr>
<tr>
<td>Adherence</td>
<td>The extent to which a patient’s behaviour corresponds with agreed recommendations from a health care provider</td>
</tr>
<tr>
<td>Concordance</td>
<td>Agreement reached after negotiation between a patient and a healthcare professional that respects the beliefs and wishes of the patient in determining whether, when and how medicines are to be taken</td>
</tr>
<tr>
<td>Persistence</td>
<td>Ability of a person to continue taking medications for the intended course of therapy</td>
</tr>
</tbody>
</table>
Discuss experiences of patients’ non-adherence to glaucoma medications in community pharmacy

- When does it happen?
- How do you identify it?
- How often does it happen?
- Why do patients not adhere to their glaucoma medications?
Non-adherence: When and how often?

How Often?
- Patients are taking 30%-70% of doses
- 1/3 of patient’s discontinue therapy in 1 year
- Discuss adherence regularly

When?
- Can occur at any stage of therapy
- Patient collecting medications does not ensure a correct use

Non-Initiation → Early Discontinuation → Sub-Optimal implementation
The five dimensions of adherence

Multiple factors affect adherence

A combination of factors determine adherence
Reasons for non-adherence in Glaucoma

Types of non-adherence

Unintentional
- Practical barriers
  (Resources and abilities)

Intentional
- Perceptual barriers
  (Beliefs and motivation)
Intentional or unintentional non-adherence?

Identify type of non-adherence in the following examples

“I always forget to use my eye drops”

“I am not sure how many drops I am supposed to use”

“I don’t think using my eye drops is worth it”

“Sometimes I get confused about which drops I am supposed to take”

“I don’t use these new drops, I am already taking too many medicines!”

“I find very difficult to use my eye drops, the bottle is too small”
Intentional or unintentional non-adherence?

**Unintentional**
- “I always forget to use my eye drops”
- “I am not sure how many drops I am supposed to use”
- “Sometimes I get confused about which drops I am supposed to take”
- “I find very difficult to use my eye drops, the bottle is too small”

**Intentional**
- “I don’t think using my eye drops is worth it”
- “I don’t use these new drops, I am already taking too many medicines!”
### Types of non-adherence

#### Unintentional

<table>
<thead>
<tr>
<th>PRACTICAL BARRIERS</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity of Regimen</td>
<td>Frequency of eye drops, complex instructions.</td>
</tr>
<tr>
<td>Cognitive Barriers</td>
<td>Poor memory</td>
</tr>
<tr>
<td>Physical Barriers</td>
<td>Poor Dexterity - difficulty in administering eye drops.</td>
</tr>
<tr>
<td>Patient Education</td>
<td>Lack of knowledge</td>
</tr>
<tr>
<td>Patient Lifestyle</td>
<td>Living alone and busy lifestyles</td>
</tr>
</tbody>
</table>
### Types of non-adherence

#### Intentional

<table>
<thead>
<tr>
<th>PERCEPTUAL BARRIERS</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs about illness</td>
<td>Perceived severity, perceived risks of illness</td>
</tr>
<tr>
<td>Beliefs about medicines</td>
<td>Perceived benefits, barriers of treatment, concerns of medications</td>
</tr>
<tr>
<td>Lack of Concordance</td>
<td>• Not involving the patient in treatment decision</td>
</tr>
<tr>
<td></td>
<td>• Communication difficulties between patient and physician</td>
</tr>
<tr>
<td></td>
<td>• Poor patient-provider relationship</td>
</tr>
</tbody>
</table>
Putting Theory into practice

1. Detecting Non-Adherence
2. Assessing Non-Adherence
3. Non-Intentional
   - Practical Barriers
   - Increasing Capacity
   - Readiness to Change
4. Intentional
   - Perceptual Barriers
   - Health Beliefs
   - Necessity Concerns
   - Readiness to Change
5. Motivation Interviewing
(1) Detecting: Non-Adherence

- No ‘gold standard’
- No tool to detect all types of non-adherence.

CUES TO INVESTIGATE ADHERENCE

- Have missed refilling prescriptions
- Elderly patient
- Patient who do not appear to have a support network
- Have difficulty communicating and/or do not speak English
- Are forgetful or absent minded
- Have cognitive impairment e.g. dementia
- Have a complex regimen
- Have been newly diagnosed with glaucoma
- Are on multiple medications
- Report missed doses/ interruption of use
- Lack knowledge about their glaucoma
## Detecting: Non-Adherence

### PROS

<table>
<thead>
<tr>
<th>Pharmacy Repeat Records</th>
<th>Patient Self-Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Objective</td>
<td>- Information about patient adherence</td>
</tr>
<tr>
<td>- Unobtrusive</td>
<td>- Patient concerns</td>
</tr>
<tr>
<td>- Inexpensive</td>
<td>- Patient understanding of condition</td>
</tr>
<tr>
<td>- Information about medicines collecting behaviour</td>
<td></td>
</tr>
</tbody>
</table>

### CONS

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not assess patterns of medicine taking</td>
</tr>
<tr>
<td>Does not assess instillation</td>
</tr>
<tr>
<td>Cannot be utilized unless the patient is a regular customer</td>
</tr>
<tr>
<td>Can be biased by false information</td>
</tr>
<tr>
<td>Most patients overestimate adherence</td>
</tr>
</tbody>
</table>
(1) Detecting Non-Adherence

Examples of tools available to measure adherence in a community pharmacy

Example 1: GuildCare – ‘MedsIndex’

- Component of the GuildCare dispensing program
- Based on patients’ refill intervals/expected refill intervals
- Prompts pharmacists to initiate an adherence conversation
- ‘MedsIndex’ gives patients an adherence score out of 100
- A score of <85 indicates the need for intervention
(1) Detecting Non-Adherence

Examples of tools available to measure adherence in a community pharmacy

UNDERSTANDING THE MEDSINDEX

For example - Medicine (30 doses) 1 dose a day:
- 30 days of medicine
- Patient’s number of days between repeats = 45 days
- \[ \text{MedsIndex} = \frac{30}{45} = 67\% = \text{MedsIndex 67} \]
Detecting Non-Adherence

Examples of tools available to measure adherence in a community pharmacy setting
Example 2: Medication Adherence Questionnaire (MAQ)

1. Do you ever forget to take your medicine?
2. Are you careless at times about taking your medicine?
3. When you feel better, do you sometimes stop taking your medicine?
4. Sometimes, if you feel worse when you take your medicine, do you stop taking your medicine?
(1) Detecting Non-Adherence

- I forget to take these medicines sometimes.
- I alter the dose of these medicines sometimes.
- I stopped taking these medicines for a while.
- I decided to miss out a dose.
- I take less than instructed sometimes.

Examples of tools available to measure adherence in a community pharmacy setting

Example 3: Medication Adherence Report Scale (MARS)
Putting Theory into practice

DETECTING NON-ADHERENCE (1)

ASSESING NON-ADHERENCE (2)

NON-INTENTIONAL (3)
- PRACTICAL BARRIERS (3a)
- INCREASING CAPACITY (3b)
- READINESS TO CHANGE (3c)

MOTIVATIONAL INTERVIEWING (5)

INTENTIONAL (4)
- PERCEPTUAL BARRIERS (4a)
- HEALTH BELIEFS (4b)
- NECESSITY CONCERNS (4c)
- READINESS TO CHANGE (4d)
Non-adherence examples

Identify type and barriers for non-adherence in the following examples

Q: How are you going with your eye drops?
A: OK but I am finding it difficult to get the drop into my eye, it always takes me a couple of attempts – and even then I am not sure it is in

Unintentional Non-Adherence → Dexterity

Q: Do you have any concerns about taking this medication?
A: I don’t like using them- they make my eyes red which it disrupts my daily activities

Intentional Non-Adherence → Perceived Risks

Q: What do you understand about these eye drops?
A: I don’t think they are necessary- I don’t feel any different after I use them

Intentional Non-Adherence → Perceived Benefits

Q: Do you have any difficulty taking these every day?
A: I always forget to take my morning dose

Unintentional Non-Adherence → Memory

Q: Do you feel that these eye drops will prevent vision loss?
A: I don’t think so, my dad has glaucoma and he didn’t lose his vision

Intentional Non-Adherence → Perceived Risks
Putting Theory into practice

DETECTING NON-ADHERENCE (1)

ASSESING NON-ADHERENCE (2)

NON-INTENTIONAL (3)
- PRACTICAL BARRIERS (3a)
- INCREASING CAPACITY (3b)
- READINESS TO CHANGE (3c)

MOTIVATIONAL INTERVIEWING (5)

INTENTIONAL (4)
- PERCEPTUAL BARRIERS (4a)
- HEALTH BELIEFS (4b)
- NECESSITY CONCERNS (4c)
- READINESS TO CHANGE (4d)
(3a) Practical barriers

- Education
- Complexity of regimen
- Cognitive barriers
- Medication label legibility
- Dexterity
What strategies would improve medication adherence in patients presenting unintentional non-adherence?
(3b) Increasing capacity

1. Interactive Educational Training Session

“I didn’t know that blindness caused by glaucoma was irreversible”

1.1 Provide Verbal Information

1.2 Suggest Online Video’s for Visual Learners

1.3 Provide Written Information
(3b) Increasing capacity

2. Individualising Regimen

“I tend to only take my eye drops once a day instead of three times a day”

2.1 Fixed Dose Combination

2.2 Linking Drops To A Daily Activity
3. Reminder Programs

“I can’t keep up with all of these medicines, I have diabetes and hypertension medication as well!”

3.1 Medicines Lists

3.2 MedicineList+ Smart Phone Application

3.3 Eye Pressure Tracker
4. Labelling

“I can’t read the label - I am not sure how many drops I am supposed to use”

“I have to take three different eye drops and I always get confused about which one I am supposed to take”

4.1 Simplifying Labels

4.2 The Colour Coding System
5. Dose Administration Aids (DDA)

“I find it very difficult to use that tiny bottle, I have arthritis!”

Can Help Patients Who Complain Of:
- Missing the eye with the drop
- Blinking as the drop is delivered
- Difficulty in squeezing the bottle

<table>
<thead>
<tr>
<th>DAA</th>
<th>MEDICATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xal-Ease™</td>
<td>Xalacom</td>
</tr>
<tr>
<td></td>
<td>Xalatan</td>
</tr>
<tr>
<td>Alcon Eyot™ 5ml</td>
<td>Betaoptic 0.5%</td>
</tr>
<tr>
<td></td>
<td>Azopt 1.0%</td>
</tr>
<tr>
<td>Alcon Eyot™ 2.5ml</td>
<td>Duotrov</td>
</tr>
<tr>
<td></td>
<td>Travatan</td>
</tr>
<tr>
<td>Autosqueeze™</td>
<td>Lumigan</td>
</tr>
<tr>
<td></td>
<td>Ganfort 0.3/5</td>
</tr>
<tr>
<td></td>
<td>Alhagan P 1.5</td>
</tr>
<tr>
<td></td>
<td>Betaoptic 0.5%</td>
</tr>
<tr>
<td></td>
<td>Azopt 1.0%</td>
</tr>
<tr>
<td></td>
<td>Xalatan</td>
</tr>
<tr>
<td></td>
<td>Xalacom</td>
</tr>
</tbody>
</table>
Instillation Technique

“I am concerned that the medication isn’t working- it’s always running down my cheek”

1. Inform on appropriate technique

1. Demonstrate this technique

1. Ask patients to recall the technique
Instillation Technique

“DOUBLE DOT” TECHNIQUE

• Don’t Open The eyes AND Digital Occlusion of the Tear duct
• Post-instillation gently close eyes just once
• Place the pad of the most sensitive finger at the inside corner of the eyelid
• Press gently
• Leave eyelids closed and the finger pressing gently for 2min

Source: Glaucoma Australia
Putting Theory into practice

1. Detecting Non-Adherence
2. Assessing Non-Adherence
3. Non-Intentional Practical Barriers
   - Increasing Capacity
   - Readiness to Change
4. Intentional Perceptual Barriers
   - Health Beliefs
   - Necessity Concerns
5. Readiness to Change
(4) Perceptual barriers

- Threat of Illness
- Positive Outcome Expectancy
- Barriers to Using Treatment
- Intent
- Self-Efficacy
What strategies would improve medication adherence in patients presenting intentional non-adherence?
Assess Health and medicines beliefs

HOW WOULD YOU ASSESS INDIVIDUAL BELIEFS ABOUT GLAUCOMA?

“What do you understand about glaucoma?”

“What do you feel that you are at risk of vision loss?”

HOW WOULD YOU ASSESS INDIVIDUAL BELIEFS ABOUT GAUCOMA MEDICATION?

“What do you understand about your medication?”

“What do you feel that when you miss your dose you are at increased risk for vision loss?”

After...Educate, rectifying any misbeliefs
Useful techniques

The most successful interventions → Education + Behavioural change interventions

Health Beliefs
Necessity-Concerns
Readiness to Change
Motivational Interviewing
Practice concordance
The necessity and concerns framework

**Necessity** and **concerns** about medications and disease.

- **Goal** = "high necessity" and "low concern"

**Primary Concerns for Glaucoma Patients**
- Side-effects
- Disruption of daily activities
- Not effective
- Glaucoma is asymptomatic
The necessity and concerns framework

4 possible states:
- Indifferent
- Skeptical
- Ambivalent
- Accepting

The necessity – concerns framework, (Clatworthy et al. 2008)
“I am worried about the eye drops - they make my eyes red, I don’t think I should be using these long term. I don’t think they will improve my vision”
Practical example

1. PATIENT
HIGH CONCERN
“I am worried about the eye drops- they make my eyes red, I don’t think I should be using these long term”

LOW NECESSITY
“I don’t think they will improve my vision”

2. PHARMACIST
“By taking your medication regularly you are preventing irreversible vision loss from occurring. I understand the redness can be troublesome, but I have some tips and techniques that may help with the redness”

3. PATIENT
HIGH NECESSITY
“This medication will prevent vision loss from occurring later in life”

LOW CONCERN
“After my pharmacist gave me some tips on why and how to administer my eye drops the redness is more tolerable”
Managing Concerns about Adverse Effects

Local adverse effects

“I don’t think it’s worth it— the drops sting my eyes and delay my morning activities”

Switching to an alternative agent
Finding the best time of day to take the medication
Switching to a gentle preservative or preservative-free alternative
Non-pharmacological

Hyphaema
Benzalkonium Chloride (BAK)
Managing Concerns about Adverse Effects

Systemic Adverse Effects

“I feel dizzy after using my eye drops—so I don’t use them in morning”

Instillation technique

- Systemic absorption can be reduced by about 2/3

Other alternatives:

- Switching to an alternative agent
- Converting to a suspension
- Gel formulations
Putting Theory into practice

DETECTING NON-ADHERENCE (1)

ASSESING NON-ADHERENCE (2)

NON-INTENTIONAL (3)
   PRACTICAL BARRIERS (3a)
   INCREASING CAPACITY (3b)
   READINESS TO CHANGE (3c)

INTENTIONAL (4)
   PERCEPTUAL BARRIERS (4a)
   HEALTH BELIEFS (4b)
   NECESSITY CONCERNS (4c)
   READINESS TO CHANGE (4d)

MOTIVATIONAL INTERVIEWING (5)
Readiness to change

Behaviour change is better described as process of identifiable stages

• Transtheoretical model
  1- Identify a patient’s readiness to change
  2- Individualise strategy
<table>
<thead>
<tr>
<th>STAGES</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>- The person is not even considering changing.</td>
</tr>
<tr>
<td></td>
<td>- They may be &quot;in denial&quot; about potential vision loss.</td>
</tr>
<tr>
<td></td>
<td>- They may have tried unsuccesssfully to change</td>
</tr>
<tr>
<td>Contemplation</td>
<td>- The person is ambivalent about changing</td>
</tr>
<tr>
<td></td>
<td>- The person weighs benefits versus barriers</td>
</tr>
<tr>
<td>Preparation</td>
<td>- The person is prepared to experiment with small changes.</td>
</tr>
<tr>
<td>Action</td>
<td>- The person takes definitive action to change behaviour.</td>
</tr>
<tr>
<td>Maintenance and</td>
<td>- The person strives to maintain the new behaviour over the long term.</td>
</tr>
<tr>
<td>Relapse Prevention</td>
<td></td>
</tr>
</tbody>
</table>
Assessing readiness to change

1. Questions that can elicit a Patient’s Readiness to Change

"Are you willing to take these eye drops to prevent vision loss?"
“How do you feel about making these changes in your daily routine?”
“Do you feel comfortable taking your medication at work?”
“Do you think that this DAA will make things easier for you?”

2. Readiness to Change can be evaluated using the “The Readiness-to-Change Ruler”
**The readiness to change ruler**

**THE READINESS TO CHANGE RULER:**

“How ready are you on a scale from 1 to 10 are you to take your glaucoma medication regularly?”

“How important is it for you on a scale of 1 to 10 to take your eye drops every day”

<table>
<thead>
<tr>
<th>Not Ready</th>
<th>Thinking About It</th>
<th>Ready</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t want to take eye drops everyday</td>
<td>I know that this medication would benefit my health.</td>
<td>I don’t take my eye drops enough and I know I need to change this.</td>
</tr>
<tr>
<td>I don’t think I need to take these drops</td>
<td>I am interested about learning more about glaucoma.</td>
<td>What can I do to help me remember to take my eye drops?</td>
</tr>
<tr>
<td>I have a terrible memory I don’t think it would work anyway</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Readiness to change-Strategies

<table>
<thead>
<tr>
<th>STAGES</th>
<th>STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-contemplation</td>
<td>▪ Educate on positive outcomes related to becoming more adherent</td>
</tr>
<tr>
<td>Contemplation</td>
<td>▪ Identify barriers and misconceptions</td>
</tr>
<tr>
<td></td>
<td>▪ Address concerns</td>
</tr>
<tr>
<td></td>
<td>▪ Identify Glaucoma Australia as a patient support network.</td>
</tr>
<tr>
<td>Preparation</td>
<td>▪ Develop realistic goals and timeline for change</td>
</tr>
<tr>
<td></td>
<td>▪ Provide positive reinforcement</td>
</tr>
<tr>
<td></td>
<td>▪ Ensure regular follow-up</td>
</tr>
<tr>
<td>Action</td>
<td>▪ Provide positive reinforcement</td>
</tr>
<tr>
<td></td>
<td>▪ Ensure regular follow-up</td>
</tr>
<tr>
<td>Maintenance and Relapse</td>
<td>▪ Provide encouragement and support</td>
</tr>
</tbody>
</table>
Putting Theory into practice

DETECTING NON-ADHERENCE (1)

ASSESING NON-ADHERENCE (2)

NON-INTENTIONAL (3)
- PRACTICAL BARRIERS (3a)
- INCREASING CAPACITY (3b)
- READINESS TO CHANGE (3c)

INTENTIONAL (4)
- PERCEPTUAL BARRIERS (4a)
- HEALTH BELIEFS (4b)
- NECESSITY CONCERNS (4c)
- READINESS TO CHANGE (4d)

MOTIVATIONAL INTERVIEWING (5)
Motivational interviewing

Seek to build the patient’s own intrinsic motivation

**PRINCIPLES**
(READS Criteria)

- Roll with resistance
- Express empathy
- Avoid argumentation
- Develop discrepancy
- Support self-efficacy

**SKILLS/METHODS**

- Reflective listening
- Asking open questions
- Affirming
- Summarising
Pharmacists are well-positioned to play a primary role in improving adherence to glaucoma medications.

1. DETECTION
2. ASSESSMENT
3. STRATEGY
4. EDUCATION AND BEHAVIOURAL CHANGE
5. FOLLOW-UP
DETECTING NON-ADHERENCE (1)

ASSESING NON-ADHERENCE (2)

NON-INTENTIONAL (3)
- PRACTICAL BARRIERS (3a)
- INCREASING CAPACITY (3b)
- READINESS TO CHANGE (3c)

INTENTIONAL (4)
- PERCEPTUAL BARRIERS (4a)
- HEALTH BELIEFS (4b)
- NECESSITY CONCERNS (4c)

MOTIVATIONAL INTERVIEWING (5)
- READINESS TO CHANGE (4d)
Improving adherence in glaucoma

A manual for pharmacists

Glaucoma Australia

UTS:Pharmacy
Glaucoma Australia gratefully acknowledges the following Sponsors for providing an unrestricted educational grant to publish “Improving Adherence in Glaucoma-A Manual for Pharmacists”.

Gold Sponsor

Alcon

a Novartis company

Silver Sponsor

Allergan Eye Care

Bronze Sponsor

Pharmaceutical Society of Australia

Supported by

Pharmacy Guild of Australia

Glaucoma Australia Incorporated, 2014