

PRACTICAL GUIDE TO ANTERIOR SEGMENT CONDITIONS

MARIETJIE CILLIERS

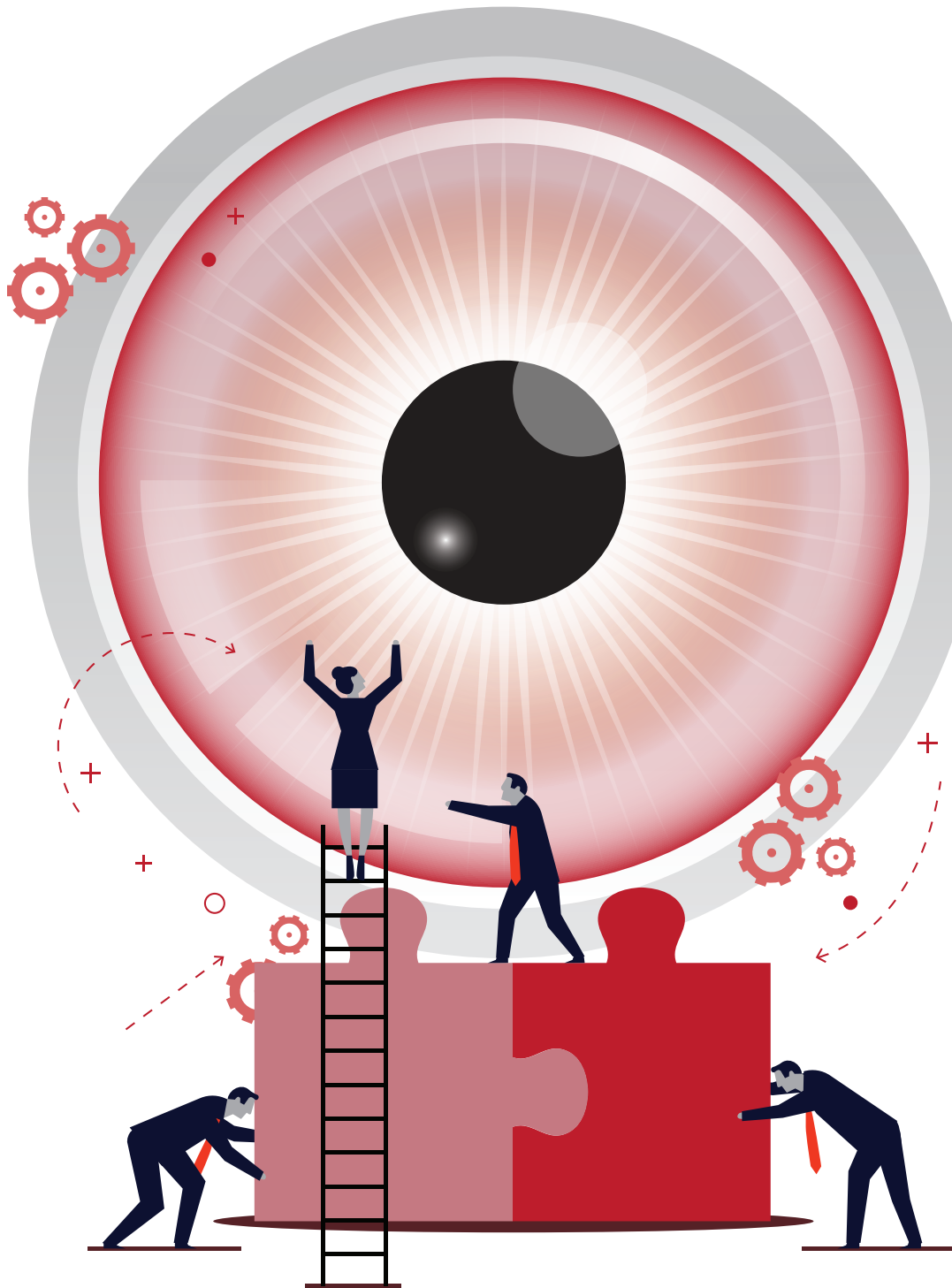
Visionstryt's  
Practical Guide to  
ANTERIOR SEGMENT CONDITIONS



Written by  
Marietjie Cilliers

Developed by  
OB MALOPE

# Practical Guide to ANTERIOR SEGMENT CONDITIONS



# ABOUT THE BOOK

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In 2015 the first group of optometrists in South Africa started the journey to obtain their Post Graduate certificate in Ocular Therapeutics (PGCOT). Up to now, South African optometrists were only able to use specific drops diagnostically and did not have any prescribing rights.

The extended scope and incorporation of therapeutics has changed the future of optometry in South Africa and will hopefully have an impact on the huge eye care burden in Africa. Africa remains one of the countries with the highest percentage of curable blindness in the world. Uncorrected refractive error is still on top of the list of causes for preventable blindness followed by cataracts, glaucoma, corneal scarring and trachoma.

The role of the optometrist in primary eye care is very apparent when looking at the above list and with the implementation of Therapeutics this is now becoming a reality. Currently there is no book in the industry which incorporates all aspects of emergency care. There are mainly diagnostic handbooks, with detailed explanations of disease presentations, but minimal information on treatment plans. *The Wills Eye Manual* by Gerstenblith and Rabinowitz is aimed at the specific treatment protocols but contains minimal diagnostic elements and is not directly available in South Africa.

The South African guide to topical ophthalmic drugs written by Dr. Dirk Booysen, the first optometric drug manuscript released in South Africa, is an amazing reference for in depth information on topical ophthalmic drugs but it also does not include the diagnostic elements or treatment schedules.

There is a great need for a practical guide that covers both diagnostic elements as well as treatment protocols. This book is not only meant as a tool for therapeutic optometrists, but also for other medical professionals who is qualified to deal with these issues.

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# INTRODUCTION

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**Visionstryt's Practical Guide for Anterior Segment Conditions is intended as an easy to use guide to managing anterior segment cases in optometric practice.**

It is the first book of its kind that includes all the following:

- Essential facts for diagnosing and managing these conditions more effectively.
- Hands on clinical pearls obtained from years of experience.
- Predominant use of real life in practice pictures and not the generic textbook type ones that no patient ever presents with.
- Treatment protocols for both South African and American drug availabilities. This should cover a wide enough range of drugs that all countries and professionals would be able to utilise it in their day to day practice.
- Active ingredients as well as trade names for drugs.
- Comprehensive dosing schedule and duration of treatment needed.
- Specially designed graphs and icons which make for a user-friendly experience.
- Drug contra-indications and follow up schedules.
- An overall personal touch and style which is relatable and easy to understand.
- First time topics such as in-depth Dry eye disease (DED) management and Onchocerciasis.

The drug choices for this book have been made based on the following:

1. The most effective treatment for that condition at the lowest possible dosage
2. The best safety profiles

Cost of medications has not been considered as I feel that the best possible option should always be presented to the patient.

Visionstryt's Practical Guide for Anterior Segment Conditions is a more efficient reference guide which can be used while the patient is still in the chair; both to educate the patient and to help formulate a treatment plan.

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# CHAPTER DISCUSSION POINTS

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## FOREWORD

Before talking about treating patients we need to discuss the business concept and the mentality with which to manage emergency eye care. These principles are very important to understand and successfully incorporate into your practice.

*In this day and age where everyone is cutting down on product prices to pull in customers, we must reinvent our business and give consumers a reason to return.*

As an insert from Book 1: Visionstryt's Business Guide to Optometrists, it's important to understand which type of consumer we are dealing with during emergency care. This plays a big part in how you choose to interact with them and what it is they require from you.



### Patient

The person that has an eye problem that needs to be solved. They are usually the person that comes to the practice for the 1st time or is referred by a health care professional.

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When these patients receive treatment quickly and effectively they will ensure that everyone they talk to knows about it. Serving your patients is what medicine is all about, and if this concept is applied successfully this will result in happy patients and a growing business.

Emergency eye care should be viewed as a speciality service which will build the practice and generate return business and other income by word of mouth.

Later in this chapter we also include a nifty toolbox which includes all the basic equipment needs for managing these conditions. We also define the newly designed graphs and icons used throughout this book.

The use of visual aids to replace wording is what makes this book so unique and user friendly.

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# BOOK CONTENT

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In Chapters 1 to 4 you will find each specific condition discussed in great detail. They are grouped under the location in which they primarily occur and then arranged alphabetically for ease of reference. All topics include a brief overview, signs and symptoms, treatment protocols, contra-indications and follow up schedules.

Most pictures used in this book were taken in an actual day to day setting. This provides a much more realistic and true view of what patients look like when presenting to your practice. Because anyone who has ever treated any disease will know that nothing is exactly black and white and sometimes making the initial diagnosis is the difficult part.



## CHAPTER 1 - Lids and lashes

We concentrate on infections and inflammation at the lid and lash areas. There is a lot of focus on lid hygiene to eliminate chronicity involved in many of these conditions. The chapter discussion points are as follows:



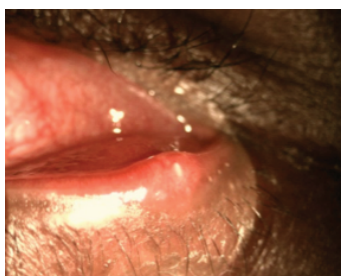
**Blepharitis**



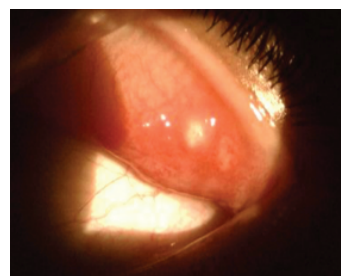
**Chalazion**



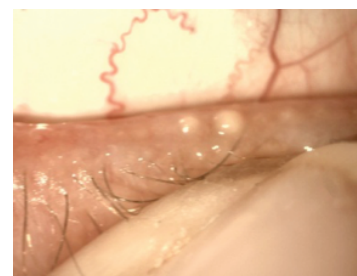
**Contact dermatitis**



**External hordeolum**



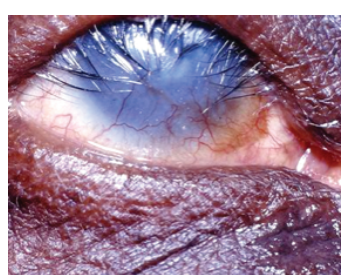
**Internal hordeolum**



**Meibomitis**



**Preseptal cellulitis**

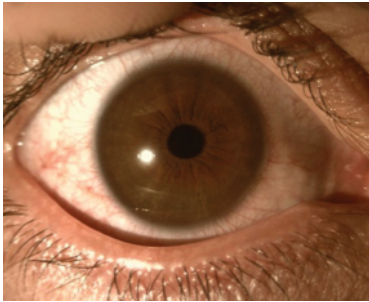


**Trachoma (web)**

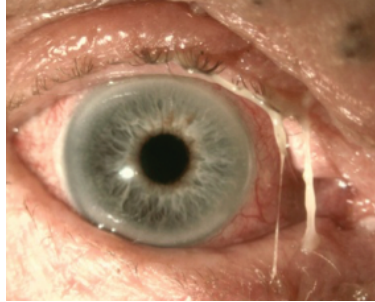


## CHAPTER 2 - Conjunctiva

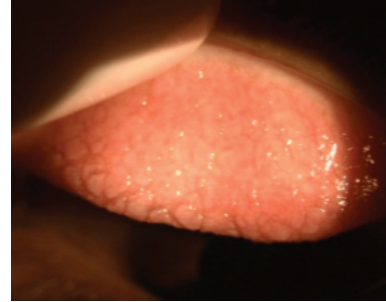
Conjunctivitis is one of the most common class of conditions seen in optometric practice. It ranges from mild itching all the way through to severe corneal scarring. Artificial tears play a big role in increased patient comfort. The chapter discussion points are as follows:



**Allergic Conjunctivitis**



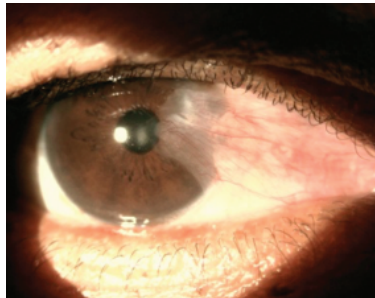
**Bacterial conjunctivitis**



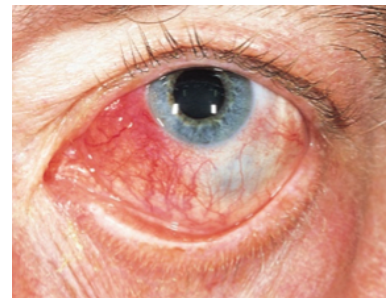
**Contact lens induced GPC**



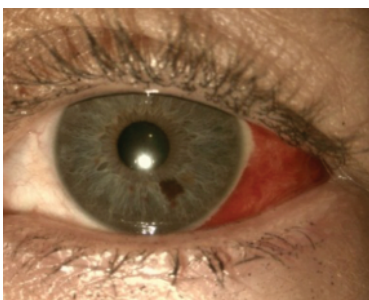
**Episcleritis**



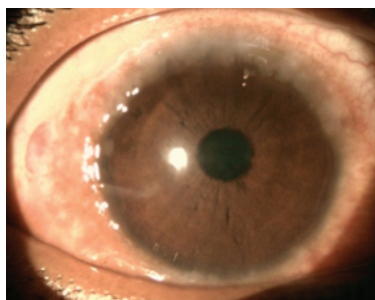
**Pterygium/Pinguela**



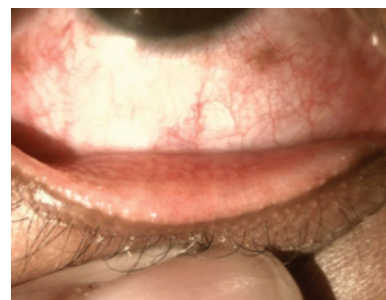
**Scleritis (web)**



**Subconjunctival haemorrhage**



**Vernal/atopic conjunctivitis**



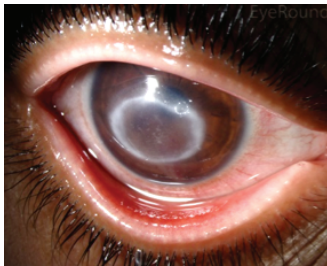
**Viral conjunctivitis**



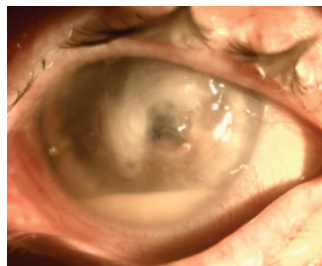


## CHAPTER 3 - Cornea

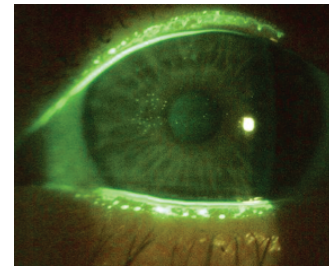
In chapter 3 we deal with some more serious and possibly sight threatening conditions due to corneal involvement. Infections are managed with stronger new generation antibiotics and we discuss some specific dry eye conditions. Dry eye disease has been excluded from this chapter as it will be discussed in great detail in chapter 5. The chapter discussion points are as follows:



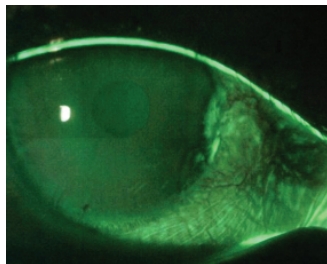
**Acanthamoeba  
keratitis (web)**



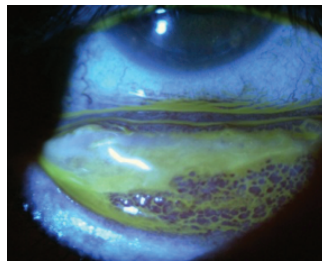
**Bacterial corneal  
ulcers**



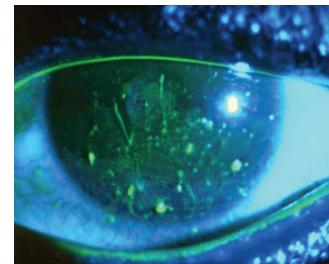
**Contact lens  
related problems**



**Dellen**



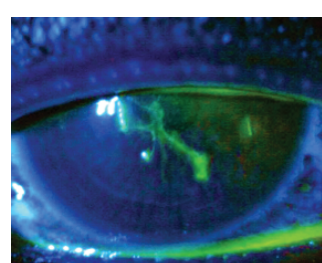
**Epidemic  
keratoconjunctivitis**



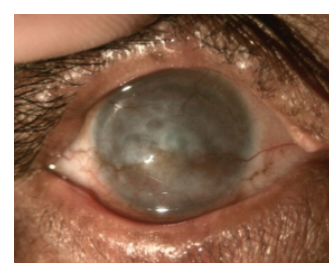
**Filamentary  
keratitis**



**Fungal keratitis (web)**



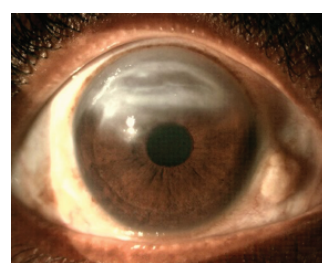
**Herpes Simplex  
keratitis**



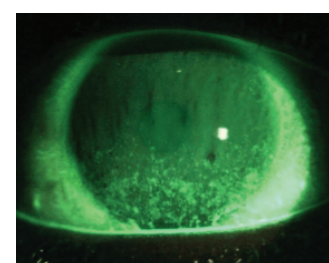
**Herpes Zoster  
keratitis**



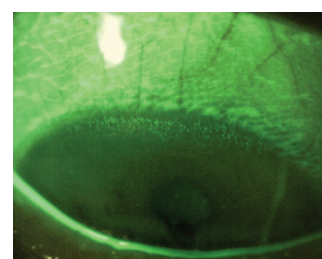
**Onchocerciasis (web)**



**Peripheral corneal  
disorders**



**Superficial punctate  
keratitis**

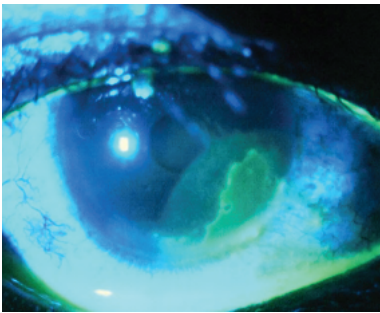


**Superior limbic  
keratoconjunctivitis**

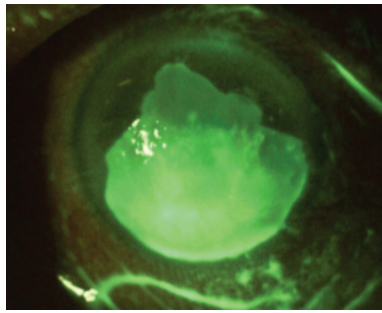


## CHAPTER 4 - Trauma

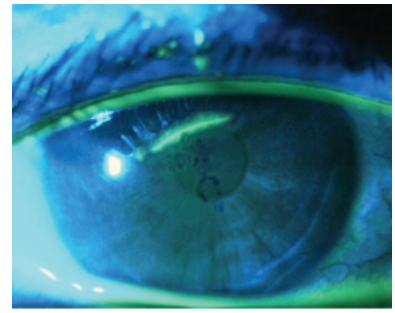
Traumatic eye injuries are also very common occurrences. The focus here is to minimize pain, treat inflammation to prevent scarring and monitor and treat possible secondary infection. The chapter discussion points are as follows:



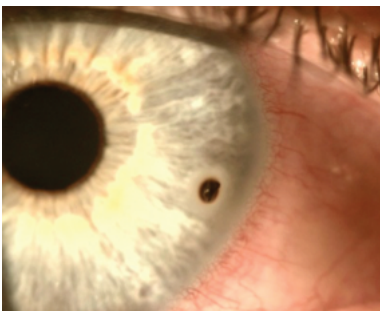
Chemical burn



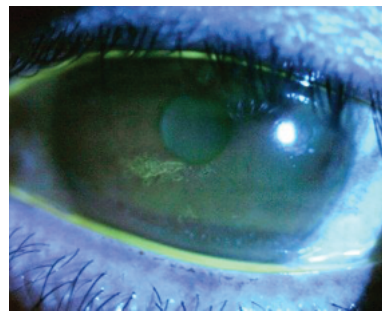
Corneal abrasion



Corneal laceration



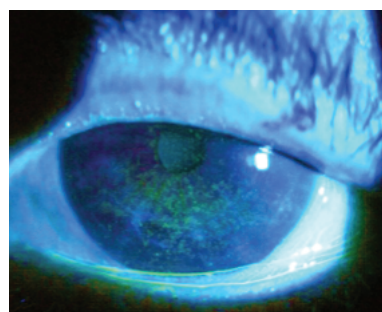
Foreign bodies



Recurrent corneal  
erosions



Traumatic uveitis



UV/Radiation keratitis

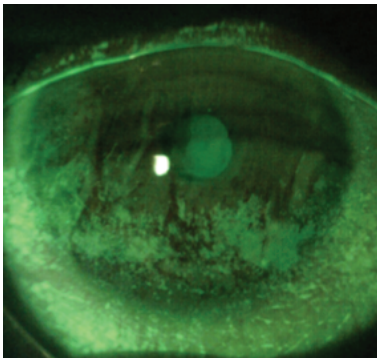


## CHAPTER 5 - Dry eye disease (DED)

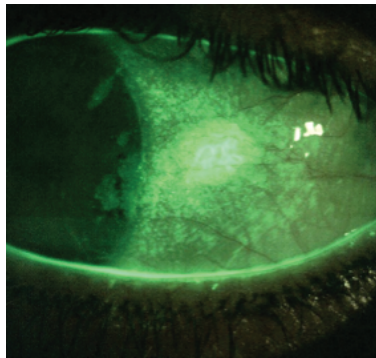
In chapter 5 we talk in depth about Dry Eye Disease (DED), it's causes and management options. DED is one of the most common yet underdiagnosed conditions worldwide. Many new technologies and eye drops have been developed over the last few years and yet still so many eye care providers don't even conduct the necessary tests, never mind offer treatment options.

Gone are the days of just prescribing whatever sample drop you have lying around hoping that it will keep your patients happy. DED is no longer a guessing game and we owe it to our patients to provide them with an accurate diagnosis and treatment plan.

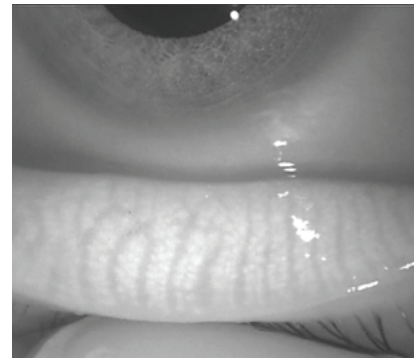
In this chapter we discuss the causes of dry eye disease, more effective management tools and using the right drops for the right patient. Dry eye management is not a "one size fits all" condition and must be tailored for each patient individually. We look at some of the newest technology available in dry eye management and some patient feedback on their experience before and after treatment.



Corneal involvement



Conjunctival involvement



Meibomian gland IR scan



## WHAT DO PATIENTS HAVE TO SAY ABOUT DRY EYE CLINICS?

"For a small town we are so privileged to have an optometrist who has a passion for eyecare and who continuously looks for solutions to every problem. I accepted that I would have teary eyes for the rest of my life every time I went outside or worked on my computer. At the age of 50 I counted myself lucky to not need glasses and convinced myself that teary, irritated eyes was not so bad. I started the dry eye clinic suggested by Marietjie and I could already feel it working after the 1st treatment. I experienced a little haziness immediately after the treatments, but it disappeared quickly. I found that the in-office treatment felt much more effective than doing it at home and an added bonus was that every treatment was incredibly relaxing with soft music playing in the background while sitting on a recliner with the heat mask on. After 4 treatments there was a big improvement and I could actually go outside without my eyes starting to tear. I am so grateful that there is solution for dry eyes. "

**Mrs Marlene Labuschagne**



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## About the author

### ***Marietjie Cilliers***

Marietjie Cilliers is a qualified Optometrist from the University of Durban Westville. She obtained her post-graduate degree in Therapeutics and has gained vast experience while working in a semi-rural environment.

Since 2010 she has been the owner of Cilliers Optometrists, a holistic eye care practice which strives to give its patients the best comprehensive eye care experience.

You can visit the company website on

**[www.coptom.co.za](http://www.coptom.co.za)**

Her incredible passion for people has compelled her to continually seek the best service delivery for her patients. While working in a government hospital setting to obtain her clinical hours for therapeutics she experienced first-hand the lack of effective primary eye care. This is what planted the seed for this book.

Optometrists need to continually redefine themselves within an ever-changing market. We can either remain refractionists and retailers, or we can be a profession that singlehandedly changes the face of primary eye care worldwide. Marietjie wants to see a passion for eye care reignited in every practice. We hope that this book is not only easy to read and to apply, but that it will spark a new fire in the hearts of everyone who reads it.



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## PREFACE

I have known Marietjie Cilliers for many years, even before she embarked on her optometric studies at UKZN. As a student Marietjie took the time during her holidays to work in my practice where she showed a keen interest in anterior segment disease and ocular therapeutics. Through the years I have watched her career with great interest, seeing her develop into a world class professional. She not only continuously strives to develop her own knowledge and skills, but contributes to the development of her chosen profession on many levels.

More importantly she also finds the time to serve her local community by working in the public hospital providing eye care to those who need it most. The Practical guide to anterior segment conditions is therefore no surprise to me and highlights her passion for our profession and its continued growth. I have no doubt that this guide will find a space in every optometrist's book shelf or on their table to be used frequently as a reference.

Marietjie has spent many hours researching the conditions making sure that the diagnostic and treatment protocols are evidence based and in line with World eye care standards. The information is provided in a logical stepwise fashion making it easy to follow and interpret. The Practical guide to anterior segment conditions is a must for all eye care students, whether you are at the pre-graduate level or have been qualified for many years.

**Well done Marietjie, I am proud to be your colleague.**

**Dr Dirk J Booysen**

**October 2018**

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## CONCLUSION

Visionstryt's Practical Guide for Anterior Segment Conditions is written from hands on experience and a passion for patient care. We wanted to create a practical tool that would make emergency eye care simple and efficient, and in the end benefit both the patient and the practitioner. There is a huge need for a single reference guide that gives the reader not only the information to diagnose but also a complete treatment plan. This guide will give structure and direction to most of the anterior segment emergencies you might be presented with.

Basic reasoning behind certain drug selections is discussed, but we suggest that it would still be necessary to read up on the specific mechanism of action of drugs especially when the mainstay treatments listed here proves ineffective. Both the South African and American guide to ophthalmic drugs supply this information in great detail.

*We trust that this book will add significant value to your business and improve your daily problem-solving ability in treating the vast spectrum of red, painful eyes.*

## WHAT DO INDUSTRY LEADERS HAVE TO SAY ABOUT THE BOOK?

"As one of the instructors for the first South Africa post-graduate certification course in therapeutics, I had the great pleasure to work with Marietjie Cilliers, who was one of the students in that class. It was clear that Marietjie had a keen instinct for treatment and management of eye disease, and I'm thrilled to see she has used her talents not only in the care of her patients but in writing this clinically useful book. Readers will find that it provides clear and concise diagnostic and therapeutic approaches to ocular conditions that will prove particularly useful to the practicing South African optometrist. I congratulate her and commend her on this important work."



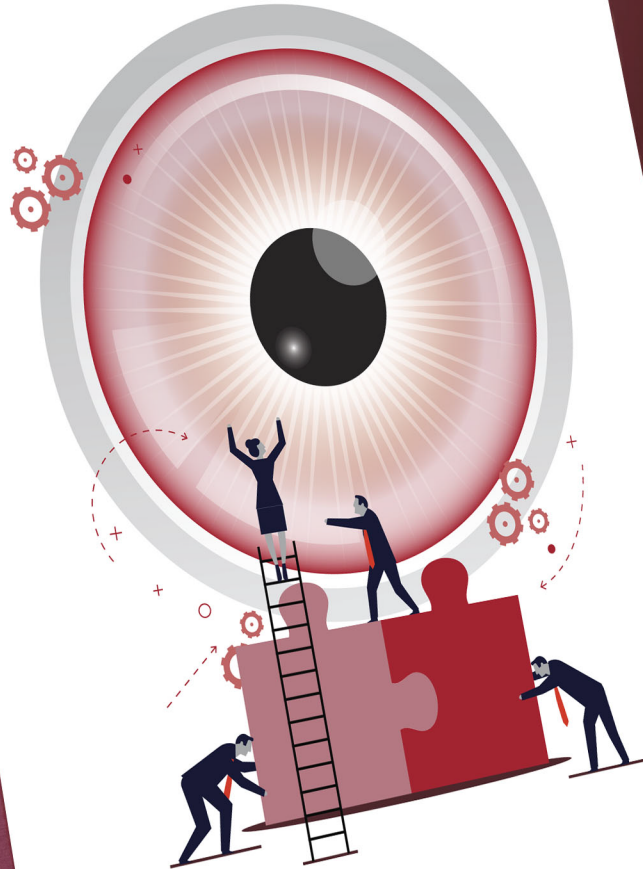
**Dr. Richard J. Madonna**

**SUNY College of Optometry  
New York, NY, USA**

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Visionstryt's

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