

# CYSTOID MACULAR EDEMA (Post Cataract Surgery)

CHI Formulary Indication Review



## INDICATION UPDATE

**ADDENDUM- October 2023**

**To the CHI Original Cystoid Macular  
Edema (Post Cataract Surgery)  
Clinical Guidance- Issued July 2020**

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## Related Documents

### Related SOPs

- IDF-FR-P-02-01-IndicationsReview&IDFUpdates
- IDF-FR-P-05-01-UpdatedIndicationReview&IDFUpdates

### Related WI:

- IDF-FR-WI-01-01SearchMethodologyGuideForNewIndications

## Abbreviations

<b>BCVA</b>	Best-Corrected Visual Acuity
<b>CHI</b>	Council of Health Insurance
<b>CME</b>	Cystoid Macular Edema or Central Macular Edema
<b>CMT</b>	Central Macular Thickness
<b>CPG</b>	Clinical Practice Guideline
<b>EMA</b>	European Medicines Agency
<b>FA</b>	Fluorescein Angiography
<b>FDA</b>	Food and Drug Administration
<b>IDF</b>	CHI Drug Formulary
<b>NSAID</b>	Non-Steroidal Anti-Inflammatory Drug
<b>OCT</b>	Optical Coherence Tomography
<b>PCME</b>	Pseudophakic Cystoid Macular Edema
<b>SFDA</b>	Saudi Food and Drug Authority
<b>VEGF</b>	Vascular Endothelial Growth Factor

## Executive Summary

Cystoid macular edema (CME) is characterized by the swelling of the retinal layers in the outer plexiform and inner nuclear zones. These fluid-filled changes result from the breakdown of capillaries around the central retinal area. This condition is commonly associated with ocular inflammation, which can be initiated by cataract surgery, a process referred to as pseudophakic CME<sup>1</sup>.

A cohort study was conducted in a tertiary eye unit in western Saudi Arabia with a modern facility for eye care in an urban area to estimate to determine the occurrence rate of central macular edema (CME) following cataract surgery and to establish a relationship between central macular thickness (CMT) and the best-corrected visual acuity (BCVA). The study included 138 patients prospectively that were operated on the first eye for the management of cataract. The incidence of CME at one- and three-months post-surgery was 18% and 4.3%, respectively<sup>2</sup>.

Every individual undergoing cataract surgery faces the potential of encountering cystoid macular edema (CME), a common complication following the procedure that leads to diminished vision. Specifically, particular groups are regarded as having an elevated likelihood of experiencing CME. This encompasses patients with diabetes, diabetic retinopathy, uveitis, instances of posterior capsule rupture, vitreous prolapse, and a history of retinal vein occlusions. Additionally, advancing age and being male have also demonstrated associations with increased risk factors<sup>1</sup>.

The main symptoms include decreased or blurred central vision, with BCVA less than 20/40, as well as mild photophobia and ocular irritation.

Pseudophakic CME is typically diagnosed through two primary methods: fluorescein angiography (FA) and more frequently used, optical coherence tomography (OCT).<sup>1</sup>

The way medical practitioners approach continuing medical education (CME) differs due to the potential for symptoms to naturally resolve in uncomplicated cases. As of now, there is no officially approved preventive method endorsed by the FDA for managing pseudophakic CME. Therapeutic approaches for CME encompass a range of options, including topical nonsteroidal anti-inflammatory drugs (NSAIDs), topical corticosteroids, intravitreal anti-vascular endothelial growth factor (anti-VEGF) agents, steroids administered intravitreally, posterior subtenon steroids, and systemic steroid treatment<sup>1</sup>.

**CHI issued Cystoid Macular Edema (Post Cataract Surgery) clinical guidance after thorough review of renowned international and national clinical guidelines in July 2020. Updating clinical practice guidelines (CPGs) is a crucial process for maintaining the validity of recommendations.**

**This report functions as an addendum to the prior CHI cystoid macular edema (Post Cataract Surgery) clinical guidance** and seeks to offer guidance for the effective management cystoid macular edema. It provides an **update on the Cystoid macular edema (post cataract surgery)** for CHI Formulary with the ultimate objective of updating the IDF (CHI Drug Formulary) while addressing **the most updated best available clinical and economic evidence related to drug therapies.**

**Main triggers for the update** are summarized, being **the issuance of updated versions of previously reviewed guidelines** namely Cataract in the Adult Eye Preferred Practice Pattern: **2021 American Academy of Ophthalmology and Pseudophakic cystoid macular edema: update 2016.**

After carefully examining clinical guidelines and reviewing the SFDA drug list, there have been no changes or updates made to any of the previously listed drugs in terms of drug information and prescribing edits since July 2020 and no new drugs have been added since then. Moreover, no drugs were delisted.

All recommendations are well supported by reference guidelines, Grade of Recommendation (GoR), Level of Evidence (LoE) and Strength of Agreement (SoA) in all tables reflecting specific drug classes' role in the Cystoid macular edema (Post Cataract Surgery) therapeutic management.

Below is a table summarizing the major changes based on the different Cystoid macular edema (Post Cataract Surgery) guidelines used to issue this report:

**Table 1.** General Recommendations for the Management of Cystoid Macular Edema (Post Cataract Surgery)

<b>Management of Cystoid macular edema (Post Cataract Surgery)</b>		
<b>General Recommendations</b>	<b>Level of Evidence/Grade of Recommendation</b>	<b>Reference</b>
The use of nonsteroidal anti-inflammatory drugs (NSAIDs), whether administered independently or in conjunction with topical corticosteroids, can reduce the probability of postoperative cystoid macular edema (CME), particularly among individuals diagnosed with diabetes.	I+, Good, Strong	2021 American Academy of Ophthalmology <sup>3</sup>

Ongoing studies are investigating the potential of employing intravitreal anti-angiogenesis medications during cataract surgery as a preventive or therapeutic approach for specific cases of cystoid macular edema.	Not graded	2021 American Academy of Ophthalmology <sup>3</sup>
The first-line therapy mandated by the French Society of Ophthalmology for symptomatic PCME is acetazolamide along with topical NSAIDs and corticosteroids.	Not graded	Pseudophakic cystoid macular edema: update 2016 <sup>4</sup>
In eyes with chronic PCME and vitreomacular traction, pars plana vitrectomy can be considered.	Not graded	Pseudophakic cystoid macular edema: update 2016 <sup>4</sup>

At the end of the report, a **key recommendation synthesis section** is added highlighting the latest updates in **Cystoid Macular Edema (Post Cataract Surgery) clinical and therapeutic management.**

## Section 1.0 Summary of Reviewed Clinical Guidelines and Evidence

This section is divided into two parts: one part includes recommendations from **updated versions of guidelines** mentioned in the previous CHI Cystoid macular edema (Post Cataract Surgery) report, and another part includes **newly added guidelines** that have helped generate this report.

### 1.1 Revised Guidelines

This section contains the **updated versions** of the guidelines mentioned in the July 2020 Cystoid macular edema (Post Cataract Surgery) Report and the corresponding recommendations:

**Table 2.** Guidelines Requiring Revision

Guidelines Requiring Revision	
Old Versions	Updated versions
1.1 Cataracts in adults: management: <b>NICE guideline</b> Published: 26 October 2017	N/A*
1.2 Cataract in the Adult Eye Preferred Practice Pattern: <b>2016 American Academy of Ophthalmology</b>	1.1.1 Cataract in the Adult Eye Preferred Practice Pattern: <b>2021 American Academy of Ophthalmology</b>
1.3 Pseudophakic Cystoid Macular Edema <b>2012</b>	1.1.2 Pseudophakic Cystoid Macular Edema: <b>Update 2016</b>

\*: No updated versions available

#### 1.1.1 Cataract in the Adult Eye Preferred Practice Pattern: 2021 American Academy of Ophthalmology

Please refer to **Section 1.2** of CHI Cystoid macular edema (Post Cataract Surgery) original clinical guidance.

The **Cataract in the Adult Eye Preferred Practice Pattern: 2021 American Academy of Ophthalmology**<sup>3</sup> introduced a set of recommendations accompanied by a grading scheme, outlined as follows:



**Table 3.** Definitions and Levels of Evidence Based on the Scottish Intercollegiate Guideline Network<sup>1</sup> (SIGN)

<b>Definitions and levels of evidence</b>	
<b>I++</b>	High-quality meta-analyses, systematic reviews of randomized controlled trials (RCTs), or RCTs with a very low risk of bias
<b>I+</b>	Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias
<b>I-</b>	Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias
<b>II++</b>	High-quality systematic reviews of case-control or cohort studies High-quality case-control or cohort studies with a very low risk of confounding or bias and a high probability that the relationship is causal
<b>II+</b>	Well-conducted case-control or cohort studies with a low risk of confounding or bias and a moderate probability that the relationship is causal
<b>II-</b>	Case-control or cohort studies with a high risk of confounding or bias and a significant risk that the relationship is not causal
<b>III</b>	Nonanalytic studies (e.g., case reports, case series)

**Table 4.** Quality of Evidence Recommendations as Defined by GRADE

<b>Quality of evidence</b>	
<b>Good quality</b>	Further research is very unlikely to change our confidence in the estimate of effect
<b>Moderate quality</b>	Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate
<b>Insufficient quality</b>	Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate Any estimate of effect is very uncertain

**Table 5.** American Academy of Ophthalmology (2021) Grading Scheme for Recommendations

<b>Grading Scheme for Recommendations</b>
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<b>Strong recommendation</b>	Used when the desirable effects of an intervention clearly outweigh the undesirable effects or clearly do not
<b>Discretionary recommendation</b>	Used when the trade-offs are less certain—either because of low-quality evidence or because evidence suggests that desirable and undesirable effects are closely balanced

- Since cystoid macular edema (CME) is commonly linked to inflammation after surgery, topical anti-inflammatory medications are employed both to prevent its occurrence and to manage existing cases of CME.
- Evidence suggests that nonsteroidal anti-inflammatory drugs (NSAIDs), whether used alone or in conjunction with topical corticosteroids, reduce the probability of postoperative CME, particularly among individuals with diabetes. (I+, Good, Strong)
- In to the 2018 ESCRS PREMED randomized clinical trial that compared bromfenac 0.09% twice a day with dexamethasone 0.1% four times a day versus a combination of the two, patients who were administered the combination experienced a reduced occurrence of CME following cataract surgery in comparison to patients treated with either medication individually.
- Research is being conducted to investigate the use of intravitreal anti-angiogenesis drugs during cataract surgery for preventive measures or treatment in specific instances of cystoid macular edema (CME).
- In the PREMED 2 study, patients were randomized into four groups: receiving 40 mg of subconjunctival triamcinolone acetonide, a 1.25 mg injection of bevacizumab, a combination of both, or no treatment, with findings showing that subconjunctival triamcinolone led to decreased macular thickness and volume at 6 to 12 weeks, while intravitreal bevacizumab had no impact.
- In separate research involving individuals with stable diabetic retinopathy but no macular edema, the administration of ranibizumab injections decreased the occurrence of postoperative cystoid macular edema within the study participants.
- Currently, a definitive procedure for averting postoperative cystoid macular edema is not firmly established. Except for retinitis pigmentosa, there are no identified genetic tendencies.
- Several studies have recommended the preemptive use of NSAIDs around the time of surgery to prevent cystoid macular edema in eyes at high risk. The application of NSAIDs before and shortly after the surgical procedure might accelerate the visual recovery during the initial weeks after surgery. There is currently no definitive Level I evidence demonstrating enhanced long-term

visual outcomes through the regular implementation of preventive NSAIDs three months or beyond after cataract surgery.

- Anti-vascular endothelial growth factors and intravitreal corticosteroids might offer utility, particularly among diabetic patients, in cases where topical medications prove ineffective or yield limited outcomes.

### 1.1.2 Pseudophakic Cystoid Macular Edema: Update 2016

Please refer to **Section 1.3** of *CHI Cystoid macular edema (Post Cataract Surgery)* original clinical guidance.

The following recommendations are retrieved from **Pseudophakic cystoid macular edema: update 2016<sup>4</sup>**

- Pseudophakic cystoid macular edema (PCME) stands out as the most frequently encountered issue following cataract surgery.
- Various approaches have been employed for the diagnosis of PCME, including its identification through -fluorescein angiography based on angiographic results, observation of clinical indicators via fundoscopy, detecting declines in visual acuity, and assessing central subfield macular thickening through optical coherence tomography (OCT).
- Modern cataract surgery is a highly effective procedure that typically leads to positive visual outcomes. Nevertheless, even with advancements in surgical techniques, when PCME occurs following surgery, the resulting vision may not reach its full potential. To achieve a favorable result, it is crucial to understand the appropriate timing and methods for treating this complication.
- Corticosteroids and topical NSAIDs, either as monotherapy or combined therapy, are a commonly used first-line treatment approach.
- If first-line approaches fail, the intravitreal administration of corticosteroids and anti-vascular endothelial growth factor agents could be considered as an alternative.
- For eyes experiencing persistent PCME along with vitreomacular traction, the option of undergoing a pars plana vitrectomy may be considered.
- The first-line therapy mandated by the French Society of Ophthalmology for symptomatic PCME is acetazolamide along with topical NSAIDs and corticosteroids.

### 1.2 Additional Guidelines

There are no additional guidelines for this indication since July 2020.

## Section 2.0 Drug Therapy in Cystoid Macular Edema (Post Cataract Surgery)

This section comprises three subsections: the first one contains the newly recommended drugs, the second one covers drug modifications, and the third one outlines the drugs that have been withdrawn from the market.

### 2.1 Additions

After July 2020, there have been no drugs for that have received FDA or EMA approval.

### 2.2 Modifications

No modifications have been made since July 2020.

### 2.3 Delisting

The following three anti-angiogenesis intravitreal injections should be delisted from CHI formulary:

- Bevacizumab
- Aflibercept
- Ranibizumab

since they have no labeled indication for cystoid macular edema and according to Cataract in the Adult Eye Preferred Practice Pattern: 2021 American Academy of Ophthalmology<sup>3</sup>, “The use of intravitreal anti-angiogenesis agents at the time of cataract surgery for prophylaxis or treatment of select cases of CME is being investigated.” Therefore, there is insufficient evidence to recommend the use of these drugs for this indication.

## Section 3.0 Key Recommendation Synthesis

- Conducting an accurate preoperative assessment of the patient holds significant importance. Patients can be categorized into those with normal risk and those at a higher risk for cataract surgery<sup>5</sup>.
- In the case of high-risk patients, it's crucial to contemplate potential enhancement or correction options. If appropriate, the introduction of medication and adjustment of the treatment plan should be considered<sup>5</sup>.
- Evidence indicates that nonsteroidal anti-inflammatory drugs (NSAIDs), whether used alone or in combination with topical corticosteroids, can decrease the likelihood of postoperative CME, especially in individuals with diabetes (I+, Good, Strong)<sup>3</sup>.
- The combination of bromfenac twice daily with dexamethasone treatment led to a decreased occurrence of CME after cataract surgery compared to using each medication separately in a randomized clinical trial<sup>3</sup>.
- Research is ongoing to explore the use of intravitreal anti-angiogenesis drugs during cataract surgery as a preventive or treatment measure for specific cases of cystoid macular edema (CME)<sup>3</sup>.
- Results of a randomized multicenter clinical trial showed that subconjunctival triamcinolone reduced macular thickness and volume at 6 to 12 weeks, while intravitreal bevacizumab had no impact<sup>3</sup>.
- In a separate study involving individuals with stable diabetic retinopathy but no macular edema, ranibizumab injections lowered the occurrence of postoperative cystoid macular edema<sup>3</sup>.
- Currently, there is no definitive method to prevent postoperative cystoid macular edema<sup>3</sup>.
- Several studies suggest using NSAIDs prophylactically around surgery to prevent cystoid macular edema in high-risk eyes. Administering NSAIDs before and after surgery might accelerate visual recovery in the initial weeks post-surgery. However, there is no Level I evidence supporting improved long-term visual outcomes through regular use of preventive NSAIDs three months or more after cataract surgery<sup>3</sup>.
- The first-line therapy mandated by the French Society of Ophthalmology for symptomatic PCME is acetazolamide along with topical NSAIDs and corticosteroids<sup>4</sup>.
- For individuals experiencing chronic PCME along with vitreomacular traction, the option of undergoing a pars plana vitrectomy may be contemplated<sup>4</sup>.

## Section 4.0 Conclusion

This report serves as **an annex to the previous CHI Cystoid macular edema (Post cataract surgery) report** and aims to provide recommendations to aid in the management of Cystoid macular edema (Post cataract surgery). It is important to note that these recommendations should be utilized to support clinical decision-making and not replace it in the management of individual patients with Cystoid macular edema (Post cataract surgery). Health professionals are expected to consider this guidance alongside the specific needs, preferences, and values of their patients when exercising their judgment.

## Section 5.0 References

1. Cystoid Macula Edema Following Cataract Surgery.
2. Bamahfouz A. Correlation of Central Macular Thickness and the Best-Corrected Visual Acuity in Three Months After Cataract Surgery by Phacoemulsification and With Intraocular Lens Implantation. *Cureus*. Published online March 12, 2021. doi:10.7759/cureus.13856
3. Miller KM, Oetting TA, Tweeten JP, et al. Cataract in the Adult Eye Preferred Practice Pattern. *Ophthalmology*. 2022;129(1):P1-P126. doi:10.1016/j.optha.2021.10.006
4. Grzybowski A, Sikorski BL, Ascaso FJ, Huerva V. Pseudophakic cystoid macular edema: Update 2016. *Clin Interv Aging*. 2016;11:1221-1229. doi:10.2147/CIA.S111761
5. Lobo C. Pseudophakic cystoid macular edema. *Ophthalmologica*. 2012;227(2):61-67. doi:10.1159/000331277
6. Grzybowski A, Sikorski B, Ascaso F, Huerva V. Pseudophakic cystoid macular edema: update 2016. *Clin Interv Aging*. 2016;Volume 11:1221-1229. doi:10.2147/CIA.S111761

## Section 6.0 Appendices

### Appendix A. Prescribing Edits Definition

#### I. Prescribing Edits (ensure consistent use of abbreviations, e.g., CU, ST)

Some covered drugs may have additional requirements, rules, or limits on coverage. These requirements and limits may include:

<b>Prescribing edits Tools</b>	<b>Description</b>
<b>AGE (Age):</b>	Coverage may depend on patient age
<b>CU (Concurrent Use):</b>	Coverage may depend upon concurrent use of another drug
<b>G (Gender):</b>	Coverage may depend on patient gender
<b>MD (Physician Specialty):</b>	Coverage may depend on prescribing physician's specialty or board certification
<b>PA (Prior Authorization):</b>	Requires specific physician request process
<b>QL (Quantity Limits):</b>	Coverage may be limited to specific quantities per prescription and/or time period
<b>ST (Step Therapy):</b>	Coverage may depend on previous use of another drug
<b>EU (Emergency Use only):</b>	This drug status on Formulary is only for emergency use
<b>PE (Protocol Edit):</b>	Use of drug is dependent on protocol combination, doses, and sequence of therapy



## Appendix B. Cystoid Macular Edema (Post Cataract Surgery) Scope

### Cystoid macular edema (Post cataract surgery) Scope

2020	Changes	2023	Rationale
<b>Section 1.0 CYSTOID MACULAR EDEMA (POST CATARACT SURGERY) Clinical Guidelines</b>			
Cataracts in adults: management: NICE guideline Published: 26 October 2017	N/A		
Cataract in the Adult Eye Preferred Practice Pattern: 2016 American Academy of Ophthalmology	Updated	Cataract in the Adult Eye Preferred Practice Pattern: 2021 American Academy of Ophthalmology <sup>3</sup>	<ul style="list-style-type: none"> <li>• Since cystoid macular edema (CME) is commonly linked to inflammation after surgery, topical anti-inflammatory medications are employed both to prevent its occurrence and to manage existing cases of CME.</li> <li>• Evidence suggests that nonsteroidal anti-inflammatory drugs (NSAIDs), whether used alone or in conjunction with topical corticosteroids, reduce the probability of postoperative CME, particularly among individuals with diabetes. (I+, Good, Strong)</li> <li>• In to the 2018 ESCRS PREMED randomized clinical trial that compared brome 0.09% twice a day with dexamethasone 0.1% four times a day versus a combination of the two, patients who were administered the combination experienced a reduced occurrence of CME following cataract surgery in comparison to patients treated with either medication individually.</li> </ul>

			<ul style="list-style-type: none"><li>• Research is being conducted to investigate the use of intravitreal anti-angiogenesis drugs during cataract surgery for preventive measures or treatment in specific instances of cystoid macular edema (CME).</li><li>• In the PREMED 2 study, patients were randomized into four groups: receiving 40 mg of subconjunctival triamcinolone acetonide, a 1.25 mg injection of bevacizumab, a combination of both, or no treatment, with findings showing that subconjunctival triamcinolone led to decreased macular thickness and volume at 6 to 12 weeks, while intravitreal bevacizumab had no impact.</li><li>• In a separate research involving individuals with stable diabetic retinopathy but no macular edema, the administration of ranibizumab injections decreased the occurrence of postoperative cystoid macular edema within the study participants.</li><li>• Currently, a definitive procedure for averting postoperative cystoid macular edema is not firmly established. Except for retinitis pigmentosa, there are no identified genetic tendencies.</li><li>• Several studies have recommended the preemptive utilization of NSAIDs around the time of surgery to prevent cystoid macular edema in eyes at high risk. The application of NSAIDs before and shortly after the surgical procedure might accelerate the visual</li></ul>
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			<p>recovery during the initial weeks after surgery. There is currently no definitive Level I evidence demonstrating enhanced long-term visual outcomes through the regular implementation of preventive NSAIDs three months or beyond after cataract surgery.</p> <ul style="list-style-type: none"><li>• Anti-vascular endothelial growth factors and intravitreal corticosteroids might offer utility, particularly among diabetic patients, in cases where topical medications prove ineffective or yield limited outcomes.</li></ul>
Pseudophakic Cystoid Macular Edema 2012	N/A		

## Appendix C. MeSH Terms PubMed

### C.1 Pubmed Search for Cystoid Macular Edema (Post Cataract Surgery)

The following is the result of the PubMed search conducted for cystoid macular edema, postoperative guideline search:

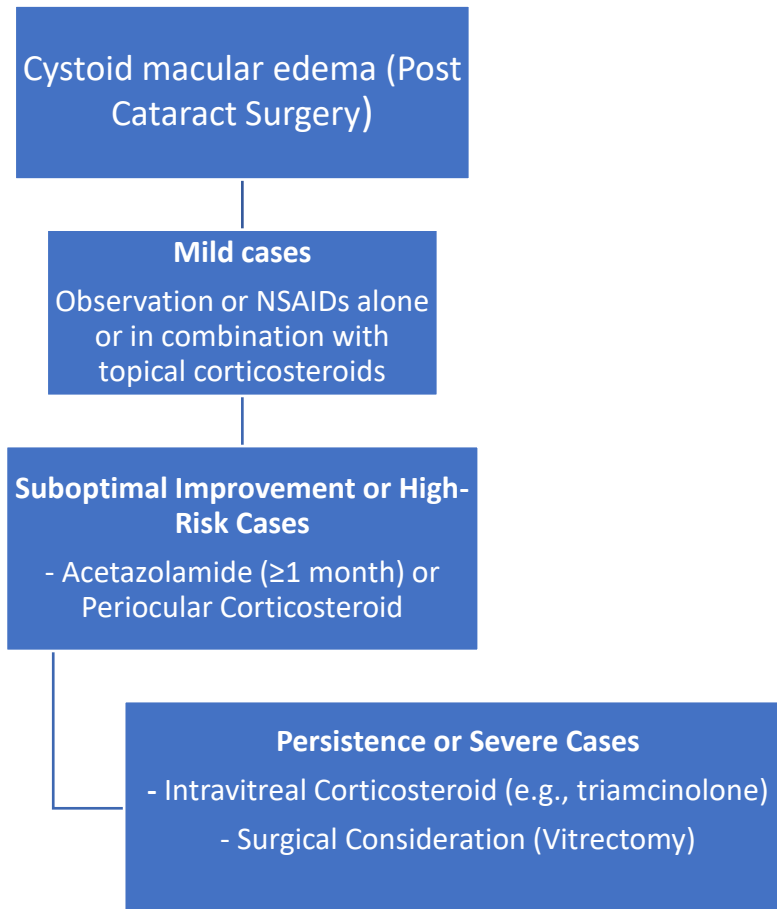
Query	Filters	Search Details	Results
<p><b>((((((((((Macular Edema[MeSH Terms] OR (Edema, Macular[Title/Abstract] ) OR (Irvine-Gass Syndrome[Title/Abstract])) OR (Irvine Gass Syndrome[Title/Abstract])) OR (Syndrome, Irvine-Gass[Title/Abstract])) OR (Cystoid Macular Edema, Postoperative[Title/Abstract])) OR (Macular Edema, Cystoid[Title/Abstract] ) OR (Edema, Cystoid Macular[Title/Abstract] ) OR (Cystoid Macular Dystrophy[Title/Abstract])) OR (Macular Dystrophy, Dominant Cystoid[Title/Abstract] ) OR (Central Retinal Edema, Cystoid[Title/Abstract] ) OR (Cystoid Macular Edema[Title/Abstract])</b></p>	<p>Guideline, in the last 5 years</p>	<p>("macular edema"[MeSH Terms] OR "edema macular"[Title/Abstract] OR "irvine gass syndrome"[Title/Abstract] OR "irvine gass syndrome"[Title/Abstract] OR ("syndrom"[All Fields] OR "syndromal"[All Fields] OR "syndromally"[All Fields] OR "Syndrome"[MeSH Terms] OR "Syndrome"[All Fields] OR "syndromes"[All Fields] OR "syndrome s"[All Fields] OR "syndromic"[All Fields] OR "syndroms"[All Fields]) AND "Irvine-Gass"[Title/Abstract]) OR "cystoid macular edema postoperative"[Title/Abstract] OR "macular edema cystoid"[Title/Abstract] OR "edema cystoid macular"[Title/Abstract] OR "cystoid macular dystrophy"[Title/Abstract] OR ("macular degeneration"[MeSH Terms] OR ("Macular"[All Fields] AND "degeneration"[All Fields]) OR "macular degeneration"[All Fields] OR ("Macular"[All Fields] AND "Dystrophy"[All Fields]) OR "macular dystrophy"[All Fields]) AND "dominant cystoid"[Title/Abstract])</p>	<p>0</p>

		<p>OR (("central"[All Fields] OR "centrally"[All Fields] OR "centrals"[All Fields]) AND ("retinaldehyde"[Supplem entary Concept] OR "retinaldehyde"[All Fields] OR "retinal"[All Fields] OR "retinaldehyde"[MeSH Terms] OR "retina"[MeSH Terms] OR "retina"[All Fields] OR "retinally"[All Fields] OR "retinals"[All Fields] OR "retinitis"[MeSH Terms] OR "retinitis"[All Fields])) AND "edema cystoid"[Title/Abstract] OR "cystoid macular edema"[Title/Abstract]) AND ((y_5[Filter]) AND (guideline[Filter]))</p>	
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The following is the result of the PubMed search conducted for cataract guideline search:

Query	Filters	Search Details	Results
<p><b>((((((((((Cataract[MeSH Terms]) OR (Cataracts[Title/Abstract])) OR (Lens Opacities[Title/Abstract])) OR (Lens Opacity[Title/Abstract]) ) OR (Opacities, Lens[Title/Abstract])) OR (Opacity, Lens[Title/Abstract])) OR (Cataract, Membranous[Title/Abstract])) OR (Cataracts, Membranous[Title/Abstract])) OR (Membranous Cataract[Title/Abstract]) ) OR (Membranous Cataracts[Title/Abstract])) OR (Pseudoaphakia[Title/Abstract])) OR (Pseudoaphakias[Title/Abstract])</b></p>	<p>Guideline, in the last 5 years</p>	<p>("Cataract"[MeSH Terms] OR "Cataracts"[Title/Abstract] OR "lens opacities"[Title/Abstract] OR "lens opacity"[Title/Abstract] OR "opacities lens"[Title/Abstract] OR "opacity lens"[Title/Abstract] OR "cataract membranous"[Title/Abstract] OR ("Cataract"[MeSH Terms] OR "Cataract"[All Fields] OR "Cataracts"[All Fields] OR "cataractic"[All Fields] OR "cataractous"[All Fields]) AND "Membranous"[Title/Abstract]) OR "membranous cataract"[Title/Abstract] OR "membranous cataracts"[Title/Abstract] OR "Pseudoaphakia"[Title/Abstract]) AND ((y_5[Filter]) AND (guideline[Filter]))</p>	<p>3</p>

## Appendix D. Treatment Algorithm



**Figure 1:** Treatment Algorithm for Cystoid Macular Edema<sup>3,6</sup>