# GEORGIAN MEDICAL MEWS

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# ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии საქართველოს სამედიცინო სიახლენი

# **GEORGIAN MEDICAL NEWS**

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**GMN:** Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНИТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНИТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

# WEBSITE

www.geomednews.com

# К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

- 1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра. Используемый компьютерный шрифт для текста на русском и английском языках Times New Roman (Кириллица), для текста на грузинском языке следует использовать AcadNusx. Размер шрифта 12. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.
- 2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.
- 3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

- 4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).
- 5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи. Таблицы и графики должны быть озаглавлены.
- 6. Фотографии должны быть контрастными, фотокопии с рентгенограмм в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста в tiff формате.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

- 7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.
- 8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов http://www.spinesurgery.ru/files/publish.pdf и http://www.nlm.nih.gov/bsd/uniform\_requirements.html В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.
- 9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.
- 10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.
- 11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректура авторам не высылается, вся работа и сверка проводится по авторскому оригиналу.
- 12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

# REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

- 1. Articles must be provided with a double copy, in English or Russian languages and typed or computer-printed on a single side of standard typing paper, with the left margin of 3 centimeters width, and 1.5 spacing between the lines, typeface Times New Roman (Cyrillic), print size 12 (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.
- 2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.
- 3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

- 4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.
- 5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles. Tables and graphs must be headed.
- 6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

- 7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.
- 8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform\_requirements.html http://www.icmje.org/urm\_full.pdf
- In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).
- 9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.
- 10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.
- 11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.
- 12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

Articles that Fail to Meet the Aforementioned Requirements are not Assigned to be Reviewed.

#### ᲐᲕᲢᲝᲠᲗᲐ ᲡᲐᲧᲣᲠᲐᲓᲦᲔᲑᲝᲓ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დავიცვათ შემდეგი წესები:

- 1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე,დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში Times New Roman (Кириллица), ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ AcadNusx. შრიფტის ზომა 12. სტატიას თან უნდა ახლდეს CD სტატიით.
- 2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ,რუსულ და ქართულ ენებზე) ჩათვლით.
- 3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).
- 4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).
- 5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.
- 6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით tiff ფორმატში. მიკროფოტო-სურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შეღებვის ან იმპრეგნაციის მეთოდი და აღნიშნოთ სუ-რათის ზედა და ქვედა ნაწილები.
- 7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა უცხოური ტრანსკრიპციით.
- 8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფჩხილებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.
- 9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.
- 10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.
- 11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.
- 12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

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# ENHANCING OPHTHALMIC NURSING EDUCATION: A COMPREHENSIVE APPROACH TO CLINICAL TEACHING AND TRAINING

Li-Bo Wang, Chun-Miao Xu.

National Clinical Research Center for Ocular Diseases, Eye Hospital, Wenzhou Medical University, Wenzhou, 325027, China.

#### Abstract.

In the current healthcare context, ophthalmic nursing education confronts a complex array of challenges and opportunities. This paper undertakes a methodical and in-depth analysis of these challenges, concurrently exploring innovative strategies designed to optimize clinical teaching models, particularly for novice nurses. In strict accordance with the guiding principles set by the National Health Commission (NHC) and in consonance with broader educational reform initiatives, this study places significant emphasis on the seamless integration of standardized training protocols. It also delves into the cultivation of advanced clinical competencies and the establishment of robust evidence - based evaluation systems. Through the meticulous construction of a structured framework that effectively bridges the divide between theoretical knowledge and practical application, the overarching goal of this research is to substantially elevate the proficiency levels of ophthalmic nurses. This, in turn, is anticipated to enhance patient safety outcomes within the intricate and specialized environment of ophthalmic care.

**Key words.** Ophthalmic nursing, clinical education, triage training, standardized protocols, competency - based learning.

#### Introduction.

In recent years, the field of ophthalmic medical technology has witnessed exponential growth. Novel diagnostic tools, minimally invasive surgical techniques, and advanced therapeutic modalities are being introduced at an unprecedented rate. While this technological renaissance holds great promise for improving patient care, it has simultaneously presented a host of new challenges for clinical nursing education in ophthalmology [1].

Ophthalmic nursing is a highly specialized field, characterized by its exacting precision requirements. The human eye is an exquisitely delicate organ, and any error in nursing care can have profound and irreversible consequences for a patient's vision. Moreover, time sensitivity is another defining characteristic of ophthalmic nursing. In cases such as retinal detachments or chemical eye injuries, prompt and accurate intervention within a narrow time frame often determines whether a patient's sight can be saved.

To meet these stringent demands, ophthalmic nurses must be equipped with a diverse skill set. Advanced technical skills are essential, ranging from the precise measurement of intraocular pressure to the delicate operation of slit - lamps. Additionally, they must possess sophisticated critical - thinking abilities to make rapid and accurate decisions in emergency situations.

The significance of competency - based training programs has been emphasized in several key documents. The 2016 Newly Recruited Nurse Training Outline clearly delineates the essential knowledge and skills that new nurses should acquire [2]. Similarly, the 2017 New Engineering Research and Practice Guidelines underscores the need for educational programs that can effectively blend theoretical knowledge with hands - on clinical expertise [3]. In response to these imperatives, this paper proposes a comprehensive three - dimensional approach to enhancing ophthalmic nursing education. This approach focuses on three core aspects: enhancing triage capabilities, establishing standardized training frameworks, and strengthening clinical skill mastery through the adoption of innovative teaching methodologies [4,5].

#### Strengthening Triage Competence for Emergency Care.

Ophthalmic triage serves as the first line of defense in safeguarding patient safety within the ophthalmic care setting. It plays a crucial role in optimizing the allocation of scarce healthcare resources. In a bustling ophthalmic emergency department, it is vital to rapidly identify patients who require immediate attention and those who can await treatment.

Current data indicates that emergency cases account for approximately 6% of all ophthalmic visits. This percentage has been on the rise in recent years, primarily due to the combined effects of industrialization and increased public awareness of eye health. Industrialization has led to an increase in workplace - related eye injuries, while greater public awareness has encouraged more individuals to seek immediate medical attention for any perceived eye problems.

Effective ophthalmic triage requires nurses to demonstrate a high level of proficiency in several key areas. Acuity assessment is a complex task that demands nurses to accurately evaluate the severity of a patient's condition based on a combination of visual symptoms, patient history, and initial physical examination findings. Care prioritization is equally important, as resources are often limited, and decisions must be made regarding which patients should be seen first. Finally, the implementation of emergency protocols is critical. Nurses need to be thoroughly familiar with the step - by - step procedures for handling various ophthalmic emergencies, such as the rapid initiation of treatment for acute angle - closure glaucoma or the proper irrigation of a chemical eye injury.

#### Training Strategy: Three - Stage Competency Development.

Foundational Phase: This initial stage focuses on laying the groundwork. Nurses are introduced to the unique environment of the ophthalmic emergency department. They learn how the triage system functions, from the initial patient intake process to the assignment of acuity levels. Understanding the department's service philosophy is also crucial, as it shapes the way nurses interact with patients. Additionally, they are taught the core knowledge related to the top 10 ophthalmic emergencies. For instance, in the case of acute angle closure glaucoma, they learn about its pathophysiology, characteristic symptoms such as severe eye pain and blurred vision, and immediate treatment options. In the case of chemical eye injuries, they are trained on the importance of rapid and thorough eye irrigation.

Assessment Phase: Once the foundational knowledge has been imparted, the assessment phase commences. Oral examinations are conducted to test nurses' understanding of the triage protocols. They are asked to verbally explain how they would handle different emergency scenarios, from assessing a patient with a suspected corneal abrasion to managing a patient with a hyphema. Theoretical assessments are also carried out, which may include written exams covering topics such as the latest guidelines for ophthalmic emergency care and the principles of acuity assessment.

Certification Phase: After successfully completing the assessment phase, nurses enter the certification phase. This involves a comprehensive post - training competency review. All aspects of their performance, from their ability to accurately assess patients to their compliance with emergency protocols, are meticulously evaluated. Detailed documentation is maintained throughout this process, which serves multiple purposes. It not only holds nurses accountable for their performance but also provides a valuable record for future reference,

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both for the individual nurse's professional development and for the improvement of the overall triage training program.

#### **Building a Standardized Training Framework.**

The quality of ophthalmic nursing training is often hindered by inconsistent teaching practices and persistent time constraints. In many institutions, different instructors may teach the same content in varying ways, leading to confusion among students. Time constraints, on the other hand, can compel instructors to rush through important topics, leaving students with gaps in their knowledge and skills.

A structured framework is essential to address these issues and ensure uniformity and efficiency in training.

### Components of the Standardized Training System.

# **Curriculum Design:**

- 1. Department management principles are an integral part of the curriculum. Nurses need to understand how the ophthalmic department operates, from the administrative aspects to the clinical operations. This includes knowledge of patient flow management, collaboration with other healthcare teams, and ensuring the smooth running of the department during peak hours.
- 2. Specialized theoretical knowledge forms the core of the curriculum. This encompasses an in depth understanding of a wide range of ophthalmic diseases, from common conditions like cataracts and glaucoma to rarer disorders such as retinitis pigmentosa. Emergency response protocols are also extensively covered, with a focus on the latest evidence based practices.
- 3. Technical skills training is comprehensive. Basic nursing care in ophthalmology, such as the proper positioning of patients for eye examinations, is taught. Slit lamp techniques are mastered, as this instrument is widely used in ophthalmic diagnosis. Emergency procedures, such as managing a patient with sudden vision loss, are also part of the training.
- 4. Medical device operation is another crucial aspect. Nurses are trained to operate a variety of ophthalmic devices, from tonometers used to measure intraocular pressure to ophthalmoscopes used for examining the internal structures of the eye.
- 5. Documentation practices and information system utilization are not overlooked. In the digital age, accurate and timely documentation is essential for patient care and maintaining a comprehensive medical record. Nurses learn how to use the hospital's information system to record patient data, treatment plans, and progress notes.

# **Progressive Learning Model:**

The learning process is structured into well - defined learning cycles. Each cycle has clear assessment milestones, which assist both instructors and students in tracking progress. For example, after completing a module on basic ophthalmic anatomy and physiology, students may be required to pass a written exam and a practical skills test.

A mentorship verification system is in place, where instructors provide sign - offs at each stage of the learning process. This ensures that students receive proper guidance and that their skills and knowledge are developed systematically.

Competency - based evaluation criteria are carefully aligned with national standards. This means that the skills and knowledge students are expected to acquire are in line with recognized best practices across the country, ensuring that graduates are well - equipped to practice ophthalmic nursing anywhere.

# **Performance Tracking System:**

Lead instructors are responsible for aggregating assessment data. This data includes performance on exams, practical skills tests, and clinical performance evaluations. By analyzing this data, instructors

can identify trends, such as common areas of weakness among students, and adjust the training program accordingly.

Individual competency portfolios are created for each nurse. These portfolios are dynamic, meaning they are updated throughout the training process. They provide a comprehensive record of the nurse's skill development over time, which can be used for performance reviews, career advancement, and identifying areas where additional training may be needed.

Real - time feedback mechanisms are established to facilitate continuous improvement. Nurses receive immediate feedback on their performance, whether during a clinical procedure or after an exam. This feedback helps them promptly correct mistakes and build on their strengths.

#### Mastering Clinical Skills for Quality Care.

In the field of ophthalmic nursing, the ability to demonstrate exceptional technical precision is non - negotiable. Simultaneously, maintaining a patient - centered approach is equally important. Patients visiting the ophthalmic clinic or emergency department are often anxious, as their vision, a precious sense, is at stake.

#### **Technical Proficiency.**

Basic Skills: Visual acuity measurement is a fundamental skill. Nurses must be able to accurately measure a patient's vision using a Snellen chart or other appropriate tools. Intraocular pressure assessment, which can be performed using a tonometer, is crucial for detecting conditions like glaucoma. Eyedrop administration but requires precision to ensure the medication reaches the intended area of the eye. Lacrimal duct irrigation and conjunctival sac lavage are also basic skills that nurses must master, as they are frequently used in the treatment of eye infections and irritations.

Advanced Techniques: Slit - lamp operation for procedures such as trichiasis removal, where misdirected eyelashes cause eye irritation, demands a high level of dexterity. Conjunctival lithiasis extraction, the removal of small stones that form in the conjunctiva, and corneal foreign body removal are equally delicate procedures. Suture removal after eye surgery is another advanced skill that nurses need to possess.

Emergency Protocols: In an emergency situation, nurses may need to perform cardiopulmonary resuscitation (CPR) if a patient's heart stops. Bag - valve - mask ventilation is used to provide artificial respiration. Defibrillation may be required to restore a normal heart rhythm in cases of cardiac arrest. Suctioning is used to clear the airway of any secretions, and oxygen therapy is commonly administered to patients with respiratory distress or those with compromised oxygen levels.

# Theoretical Knowledge Integration.

Monthly continuing education sessions are designed to keep nurses updated and integrate theoretical knowledge with clinical practice. These sessions cover a wide range of topics. Disease - specific nursing care is explored in detail, for example, how to care for a patient with age - related macular degeneration, including dietary advice, lifestyle modifications, and monitoring disease progression. Procedure - related complication management is also a key topic. Nurses learn to recognize and manage complications that may arise during or after ophthalmic procedures, such as infections, bleeding, or adverse reactions to medications. Nurse - patient communication strategies are emphasized, as effective communication is essential for building trust and ensuring patient compliance. Finally, quality improvement initiatives in ophthalmic care are discussed, with a focus on how nurses can contribute to enhancing the overall quality of care in the department.

#### Implementation and Evaluation.

Regular competency assessments are the cornerstone of ensuring that nurses continuously improve their skills and knowledge.

Monthly technical and theoretical exams are conducted to test nurses' understanding of the material and their ability to apply it in a clinical setting. Structured feedback mechanisms are in place to provide nurses with detailed feedback on their performance. This feedback not only identifies areas for improvement but also highlights strengths that can be further developed.

Documentation of training outcomes is of utmost importance. It serves as a form of accountability, as it shows what nurses have learned and how well they have performed. Moreover, this documentation provides a solid basis for evidence - based program refinement. By analyzing the training outcomes, educators can identify areas where the training program may need adjustment, such as adding more practical training in a particular area or modifying the curriculum to better address emerging trends in ophthalmic nursing. As noted by the Ministry of Education in 2017, this evidence - based approach is essential for the continuous improvement of educational programs.

#### Conclusion.

In conclusion, a systematic and holistic approach that seamlessly integrates triage training, standardized curricula, and advanced skill development is not only desirable but essential for improving the quality of patient care in ophthalmology. By strictly adhering to national guidelines and proactively addressing the unique challenges specific to ophthalmic nursing, this proposed framework has the potential to empower nurses to provide safe, efficient, and patient - centered care.

Looking ahead, future research in this area should focus on evaluating the long - term outcomes of this comprehensive approach. This includes tracking the career progression of nurses who have undergone such training, the impact on patient satisfaction levels, and the overall reduction in medical errors in ophthalmic care. Additionally, exploring innovative teaching methodologies, such as the use of virtual reality simulations for training in complex ophthalmic procedures or the implementation of peer - to - peer learning models, can further enhance the effectiveness of ophthalmic nursing education and meet the ever - evolving demands of the healthcare industry.

#### Conflict of interest statement.

The authors declare that this research was conducted in the absence of any business or financial relationships that could be construed as potential conflicts of interest.

#### Data Availability.

Data is provided within the manuscript.

# Human Ethics and Consent to Participate declarations.

Not applicable

# Acknowledgements.

Not applicable

#### Consent for Publication.

All other authors have read the manuscript and have agreed to submit it in its current form for consideration for publication in this journal.

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