

The chatbot Surgery-3 operates at <https://t.me/@Surgery3Bot>. Advantages include personalized answers, availability during limited internet connectivity, 24/7 access, and high query processing speed. Limitations involve challenges with complex clinical questions and the need for regular knowledge updates.

### **Conclusion**

The Surgery-3 chatbot we developed enables more efficient study of the Surgical Diseases course topics. Using the teaching materials of the Surgical Diseases Department #3 in combination with international surgery textbooks enables better preparation for the surgery exams.

### **LITERATURE**

1. *Smith, J.* The Role of AI in Patient Engagement / J. Smith // Journal of Medical Systems. – 2022. – Vol. 46, № 2. – P. 1–10.
2. *Johnson, R.* Enhancing Patient Satisfaction Through AI Chatbots: A Surgical Perspective / R. Johnson, A. Lee // Surgical Innovation. – 2023. – Vol. 30, № 1. – P. 45–52.
3. *Kumar, P.* Challenges in Implementing Chatbot Technology in Healthcare / P. Kumar // Health Informatics Journal. – 2021. – Vol. 27. – P. 1–9.
4. RAG (Retrieval-Augmented Generation) [web]. – URL: [https://en.wikipedia.org/wiki/Retrieval-augmented\\_generation](https://en.wikipedia.org/wiki/Retrieval-augmented_generation) (date of access: 09.03.2025).
5. Deepseek [web]. – URL: <https://platform.deepseek.com/usage> (date of access: 09.03.2025).
6. Anything LLM [web]. – URL: <https://anythingllm.com/> (date of access: 09.03.2025).

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**Sadham Kolamunna, Nelusha Dias**

*Scientific Supervisor: PhD, Associate Professor A. A. Litvin*

*Educational Establishment  
«Gomel State Medical University»  
Gomel, Republic of Belarus*

## **LEVERAGING ARTIFICIAL INTELLIGENCE FOR PERSONALIZED ERPM EXAM PREPARATION AMONG SRI LANKAN MEDICAL STUDENTS STUDYING ABROAD**

### **Introduction**

The increasing mobility of students in international medical schools has created a diverse cohort of aspiring healthcare professionals. Despite their competence, Sri Lankan students returning home must pass the ERPM to qualify as registered physicians. The transition from foreign curricula to the requirements of the Sri Lanka Medical Council presents significant challenges that require innovative teaching methods [1].

There are next challenges faced by Sri Lankan students preparing for the ERPM [2].

1) Differences in medical curricula: differences in course structures, clinical exposure, and assessment styles between overseas universities and Sri Lanka.

2) Language barriers: many students study in a non-English or non-Sinhala/Tamil environment, making it difficult to adapt.

3) Limited access to standardized resources: availability of specific preparation materials for the ERPM is poor compared to standardized exams such as the USMLE or PLAB.

There is now a growing role for AI in supporting these students by providing structured, adaptive, and personalized learning experiences [3, 4].

### **Goal**

The aim of this paper was to analyze the results of a survey conducted among last year's Sri Lankan students on the use of artificial intelligence technologies to prepare for postgraduate examinations in surgery.

### ***Material and methods of research***

A mixed-method approach was used to evaluate the effectiveness of AI-based learning tools for ERPM preparation. The following activities were included.

- 1) Surveys and interviews were conducted among Sri Lankan students studying abroad to understand their learning challenges and preferences.
- 2) Pilot implementation by developing and testing AI-based learning tools.
- 3) Analysis of effectiveness by comparing student performance using AI-based learning with traditional methods.

The questionnaire included the expected outcomes of using AI:

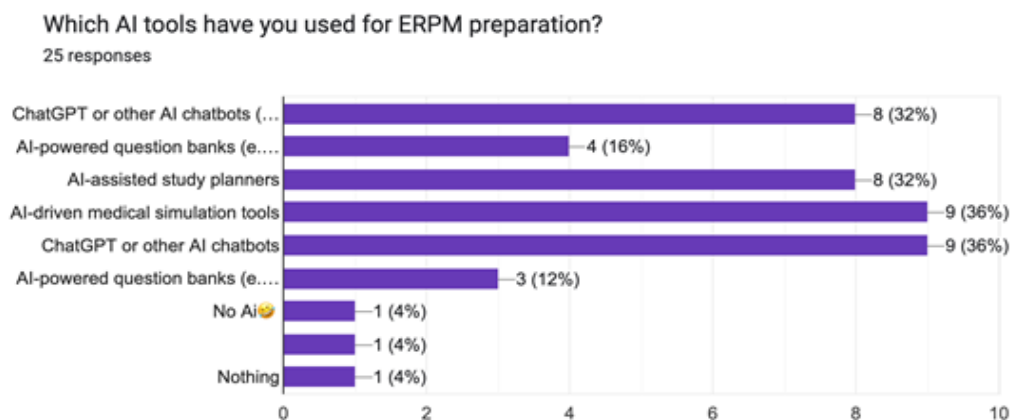
- 1) Improved access to ERPM-focused learning materials.
- 2) Improved exam readiness through personalized AI-based learning.
- 3) Reduced barriers to learning through automated translations and real-time academic support.

We collected information from 25 students at our university who graduated last year. These doctors recently appeared for the SLMC exam, which is known as ERPM, in 2024.

### ***The results of the research and their discussion***

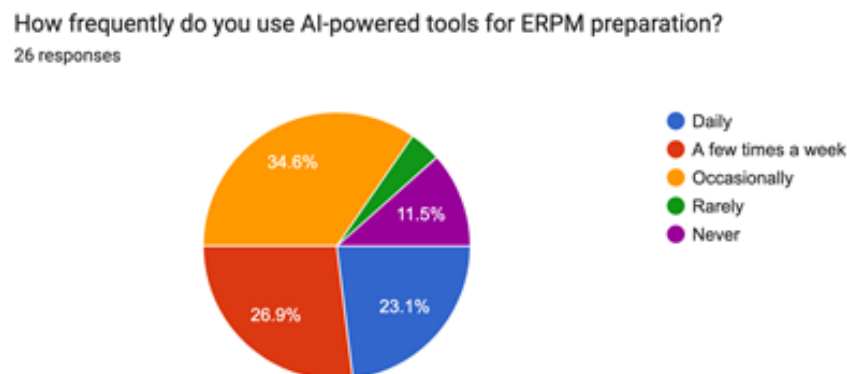
The results of our research are presented in bar and pie charts.

From the bar chart, we can see that most of the students (88%) used AI-based tools for preparation. The bar chart shows that an equal percentage of graduates, 36%, used AI-based medical simulations and AI-based chatbots, respectively (Figure 1).



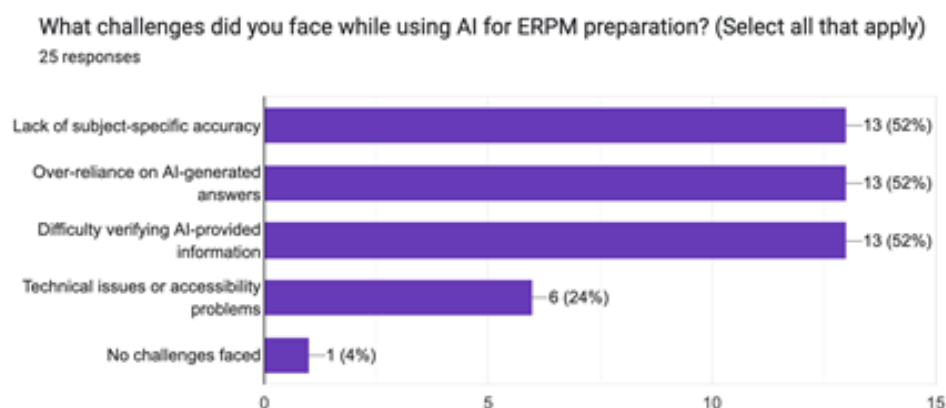
***Figure 1 – Sources used for exam preparation***

Figure 2 shows the frequency of using AI tools for exam preparation. AI was used daily in 23,1% of cases, a few times a week – 26,9%, and occasionally – 34,6%.



***Figure 2 – Frequency of using AI-based tools for exam preparation***

Figure 3 shows the challenges students faced when using AI to prepare for exams. An equal percentage of last year's Sri Lankan students reported that their common challenges included a lack of subject-specific accuracy, over-reliance on AI-generated answers, and difficulty verifying information provided by AI.



*Figure 2 – Challenges while using AI for exam preparation*

Thus, our study shows that further work is needed to develop reliable and effective methods for integrating AI into medical education.

### **Conclusion**

AI-based educational technologies represent a transformative approach to overcome the barriers faced by Sri Lankan medical graduates preparing for ERPM. Integrating LLM technology, digital twins, and chatbots into medical education will improve learning outcomes and personalize learning.

### **LITERATURE**

1. *de Silva, N.* Regulation of the medical profession in Sri Lanka: reform is urgently needed / N. de Silva, H. de Silva // Ceylon Med J. – 2019. – Vol. 64(3). – P. 79–81.
2. Medical ethics: knowledge, attitude and practice among doctors in three teaching hospitals in Sri Lanka / A. W. I. P. Ranasinghe, B. Fernando, A. Sumathipala [et al.] // BMC Med Ethics. – 2020. – Vol. 21(1). – P. 69.
3. Applications of Artificial Intelligence (AI) in Medical Education: A Scoping Review / F. Nagi, R. Salih, M. Alzubaidi [et al.] // Stud Health Technol Inform. – 2023. – Vol. 305. – P. 648–651.
4. Generative AI (gAI) in medical education: Chat-GPT and co / S. Moritz, B. Romeike, C. Stosch [et al.] // GMS J Med Educ. – 2023. – Vol. 40(4). – P. 54.

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**Saim Ali Shahid, Sara Ali Shahid**

*Scientific Supervisor: PhD, Associate Professor A. A. Litvin*

*Educational Establishment*

*«Gomel State Medical University»*

*Gomel, Republic of Belarus*

## **STUDY OF THE CHOLE-POSSUM PRO SCALE BASED ON PARTICIPATION IN AN INTERNATIONAL MULTICENTER STUDY CHOLE-POSSUM PRO**

### **Introduction**

Currently, the Tokyo Guidelines and the World Society for Emergency Surgery (WSES) are used worldwide for the diagnosis and treatment of acute calculous cholecystitis (ACC). These guidelines state that early cholecystectomy (EC) should be the first-line therapy for