ChatGPT Validation on Medical Education for **Medical Students**

Thank you for taking part in this second phase of validating ChatGPT in Medical Education. Your expertise is invaluable in helping us to determine the model's effectiveness and identify its major limitations in assisting users in this field. As such is your available time, this form was prepared to be simple and swift (hopefully) towards facilitating your medical work, now with feedback-focussed improvements among the experimental tasks of diverse public targets defined until now.

📄 Similar to the first phase, **review the second attempt** of ChatGPT, where prompting is omitted from you in order to be an unbiased validation. **Results** are presented inside a PDF file that you may have received from the same email links you here.

Patient | Task 1 - *IE Concept Explication in Informative Flyers*

Sharing medical information in society is pertinent for improving patient conditions by compelling preventive measures in daily routines while acknowledging undesired complications. For better conveyance, usually, such knowledge is passed through accessible and illustrative flyers. In this task, ChatGPT is placed in creating medical brochures trying to explain the disease to Portuguese patient readers.

Validation Methodology

Please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

How well did ChatGPT explain the Infective Endocarditis illness to **patients** through medical flyer creation, now **(Patient-T1-6)**?   *

○ 1

○ 2

◉ 3

○ 4

○ 5

Did you find any non-factual information in the generated flyers you would like to report? If so, which?   *

No

Do you have any extra observations you want to provide? (Optional)

Nao

Medical Student | Task 1 - *IE Concept Explication in Text*

As future medical professionals, a comprehensive recognition of evidence, guidelines, and disease implications to patient care is crucial for education. In this task, ChatGPT tries to explain our target disease to such students (via text) in less than 100 words.

Validation Methodology
As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

How well did ChatGPT explain the Infective Endocarditis disease to medical students in text **(MedicalStudent-T1-7)**? *

- ○ 1
- ○ 2
- ● 3
- ○ 4
- ○ 5

Did you find any non-factual information in the description given by ChatGPT you would like to report? If so, which?

No

Which of the below do you think is the student's academic level best aligns with this ChatGPT result? *

- ○ Regular Medical Student (3rd year of graduation)
- ○ Advanced Medical Student (5th year of graduation)
- ○ Inconclusive based on available information
- ● Non-Medical Student (pregraduation)
- ○ Outra:

Do you have any extra observations you want to provide? (Optional)

Continua a ser vago na explicação p alunos medicina

Medical Student | Task 2 - *IE Theoretical Slide Builder*

Preparing theoretical lectures for medical students involves explaining foundational biomedical concepts and exploring existing frameworks while studying a disease. In this task, as medical teachers, we confront ChatGPT in building 5 theoretical slides about our target disease for our medical students.

Validation Methodology
As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

📣 From **1 as "Unusable"** to **5 as "Perfect"**

How did ChatGPT assist in making theoretical slides about Infective Endocardits for medical *
students **(MedicalStudent-T2-6)** ?

- ◯ 1
- ◯ 2
- ⦿ 3
- ◯ 4
- ◯ 5

Did you find any non-factual information present among ChatGPT-built slides you would like to report? If so, which?

Sim, alguns erros no pouco conteúdo que apresenta

Which of the below do you think is the student's academic level best aligns with this ChatGPT result? *

- ⦿ Regular Medical Student (3rd year of graduation)
- ◯ Advanced Medical Student (5th year of graduation)
- ◯ Inconclusive based on available information
- ◯ Non-Medical Student (pregraduation)
- ◯ Outra: ....

Do you have any extra observations you want to provide? (Optional)

Só tem quase os tópicos para apresentar. E muito pouco conteúdo. Talvez útil para planear apresentação

Medical Student | Task 3 - *IE Evaluation with Multiple-Choice Questions*

One evaluation format commonly used by educators in quickly assessing medical students is the multiple-choice question. Besides responding directly, these questions have to cover the evaluated medical subject by containing independent options, one of which being the correct (or most suitable) answer to its question. In this task, ChatGPT was ordered to create 5 multiple-choice questions alongside an explanation of the correct option.

Validation Methodology
As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

How well did ChatGPT assist in generating multiple-choice questions for assessing Infective *
Endocarditis knowledge of medical students **(MedicalStudent-T3-5)**?

○ 1

◉ 2

○ 3

○ 4

○ 5

Did you encounter any inappropriate academic questions, umbiguous options, or non-factual
explanations from ChatGPT you would like to report? If so, which?

Questão 2 e 5 erradas

Which of the below do you think is the student's academic level best aligns with this *
ChatGPT result?

◉ Regular Medical Student (3rd year of graduation)

○ Advanced Medical Student (5th year of graduation)

○ Inconclusive based on available information

○ Non-Medical Student (pregraduation)

○ Outra:

Do you have any extra observations you want to provide? (Optional)

Sometimes, multiple-choice questions are inadequate to analyze or discuss a medical topic. As often approached by educators, open-ended questions are used instead, offering a more nuanced methodology and allowing for in-depth exploration and demonstration of knowledge. In this task, ChatGPT attempts to elaborate 3 such thought-provoking questions, each one with a standard answer.

Validation Methodology
As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

How well did ChatGPT assist in generating open-ended questions for assessing Infective Endocarditis knowledge of **medical students?** *

	1	2	3	4	5
MedicalStudent-T4-5	○	○	○	◉	○
MedicalStudent-T4-6	○	○	○	◉	○

Did you encounter any inappropriate academic questions, or non-factual explanations from ChatGPT you would like to report? If so, which? *

Nao

Which of the below do you think is the student's academic level best aligns with the ChatGPT *
result **T4-5**?

- ⦿ Regular Medical Student (3rd year of graduation)
- ○ Advanced Medical Student (5th year of graduation)
- ○ Inconclusive based on available information
- ○ Non-Medical Student (pregraduation)
- ○ Outra: ....

Which of the below do you think is the student's academic level best aligns with the ChatGPT *
result **T4-6**?

- ⦿ Regular Medical Student (3rd year of graduation)
- ○ Advanced Medical Student (5th year of graduation)
- ○ Inconclusive based on available information
- ○ Non-Medical Student (pregraduation)
- ○ Outra: ....

Do you have any extra observations you want to provide? (Optional)

....

MedicalStudent | Task 5 - *IE Clinical Case Study Evaluation*

One enriched exercise created by medical teachers is to place students in clinically analyzing a prepared case study of a demonstrative patient condition and then answering a series of case-related questions. In this task, we prompted ChatGPT to generate an evaluation sheet based on a generated clinical case study.

Validation Methodology

As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

Is ChatGPT capable of creating a clinical case-based evaluation of Infective Endocarditis disease for **medical students?** *

	1	2	3	4	5
MedicalStudent-T5-5	○	○	◉	○	○
MedicalStudent-T5-6	○	○	◉	○	○

Did you see the hypothetical case study as dubious, inappropriate academic questions, or any inconsistencies between both you would like to report? If so, which? *

Nao

Which of the below do you think is the student's academic level best aligns with the ChatGPT result **T5-5**? *

- ◉ Regular Medical Student (3rd year of graduation)
- ○ Advanced Medical Student (5th year of graduation)
- ○ Inconclusive based on available information
- ○ Non-Medical Student (pregraduation)
- ○ Outra: _____

Which of the below do you think is the student's academic level best aligns with the ChatGPT *
result **T5-6**?

- ⦿ Regular Medical Student (3rd year of graduation)
- ○ Advanced Medical Student (5th year of graduation)
- ○ Inconclusive based on available information
- ○ Non-Medical Student (pregraduation)
- ○ Outra: ....

Do you have any extra observations you want to provide? (Optional)

Os casos são mais ou menos lineares embora com detalhes que não seriam aplicáveis no caso para estudo

PostGraduation | **Task 1 -** *IE Guidelines Congress Slide Builder*

Medical congresses provide a professional platform for exchanging groundbreaking research and insights within the healthcare community. In this task, ChatGPT will develop a 20-minute slide presentation tailored for an upcoming Portuguese medical congress on updates of the disease guidelines.

Validation Methodology
As for the previous task, please adhere to the following convention when validating ChatGPT performance throughout this task:

⚡ From **1 as "Unusable"** to **5 as "Perfect"**

Would you use ChatGPT to help you in preparing a slide presentation for the upcoming Portuguese medical congress? *

	1	2	3	4	5
PostGraduation-T1-5	○	○	●	○	○
PostGraduation-T1-6	○	○	●	○	○

Did you see any outdated information, or non-factual affirmations in the ChatGPT-proposed slides you would like to report? If so, which? *

Dá exemplos com erros

Is there relevant medical information or desired structure not met in the scope of the ChatGPT-generated slides? *

Não. Da tópicos que me parece adequados para construir uma apresentação. Os poucos exemplos que dá têm erros

Do you have any extra observations you want to provide? (Optional)

Nao

Google Formulários