

# Tips for asking AI for advice.

1. **Be Specific:** Provide as much detail as possible about your question or the context.
  - Example: "What are the common causes of cataracts in adults?"
2. **Clarify Your Intent:** Let me know if you need a detailed explanation, a quick answer, or specific types of information.
  1. Example: "Can you explain the pathophysiology of glaucoma in detail?"
3. **Use Clear Language:** Avoid ambiguous terms and be as clear as possible.
  1. Example: Instead of "What about eye problems?" you could ask, "What are the symptoms and treatment options for diabetic retinopathy?"
4. **Include Relevant Background Information:** If your question relates to a specific case or scenario, providing background details can be helpful.
  1. Example: "I have a patient with reduced vision and a salt-and-pepper appearance of the fundus. What conditions should I consider?"

- Example – Lump on the lid? - ChatGPT 4o (March 2024 release)
- **I am a GP with a patient who has a lump on their lid. Please help me make the diagnosis by asking me a series of questions and answers.**



## Initial Assessment

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### 1. Duration:

- **Question:** How long has the lump been present?
- **Answer:** This will help differentiate between acute and chronic conditions.

### 2. Growth Pattern:

- **Question:** Has the lump changed in size or shape over time?
- **Answer:** Rapid growth may suggest malignancy, while stable size over months could suggest a benign condition.

### 3. Pain and Discomfort:

- **Question:** Does the patient experience any pain or discomfort associated with the lump?
- **Answer:** Painful lumps may indicate infections or inflammatory conditions such as a sty or chalazion.

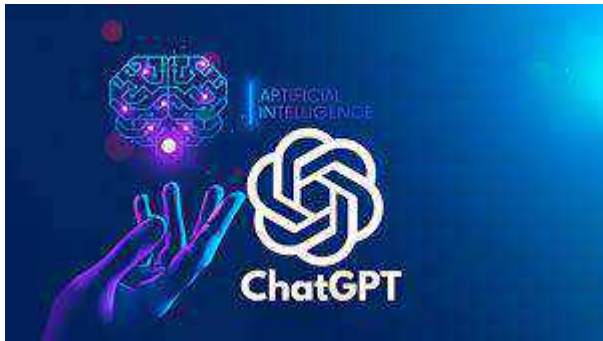
### 4. Appearance:

- **Question:** What is the appearance of the lump (color, texture, presence of pus or fluid)?
- **Answer:** Redness and swelling with pus might indicate an abscess, while a smooth, painless lump could suggest a benign lesion like a chalazion.

### 5. Location:

- **Question:** Is the lump located on the upper or lower eyelid? Is it on the margin or further from the lash line?
- **Answer:** Chalazions often appear away from the lash line, while styes usually appear at the margin.





### 7. Associated Symptoms:

- **Question:** Are there any associated symptoms such as vision changes, itching, or tearing?
- **Answer:** Vision changes could indicate more serious underlying issues, while itching might suggest an allergic reaction.

### 8. Systemic Symptoms:

- **Question:** Does the patient have any systemic symptoms such as fever or fatigue?
- **Answer:** Systemic symptoms could suggest an infectious or inflammatory process.

### 9. Medical and Family History:

- **Question:** Does the patient have any relevant medical history or family history of skin conditions or cancers?
- **Answer:** A history of skin cancer in the family could raise suspicion of a malignancy.

## Physical Examination

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### 10. Lymph Nodes:

- **Question:** Are there any enlarged lymph nodes in the preauricular or submandibular regions?
- **Answer:** Enlarged lymph nodes can indicate infection or malignancy.

### 11. Lid and Lashes:

- **Question:** Are there any abnormalities in the lid margin or lashes (loss of lashes, misdirection)?
- **Answer:** Lash loss can be seen in malignancies or chronic blepharitis.



Based on the provided answers:

1. **Duration:** The lump has been present for a week.
2. **Growth Pattern:** The lump is getting larger.
3. **Pain and Discomfort:** The lump is not painful.
4. **Appearance:** Slightly pink, no discharge.
5. **Location:** Upper lid.
  
6. **History:** Similar lump a few years ago.
7. **Associated Symptoms:** No other symptoms.
8. **Systemic Symptoms:** No systemic conditions.
9. **Medical and Family History:** No family history of relevant conditions.
10. **Lymph Nodes:** Not enlarged.
11. **Lid and Lashes:** No changes in lid lashes.

## Likely Diagnosis: Chalazion

### Rationale:

- **Growth:** The lump is increasing in size but is not painful, which is characteristic of a chalazion.
- **Appearance:** The slight pink color and lack of discharge suggest a non-infectious process, which aligns with a chalazion rather than a sty (hordeolum).
- **Location:** Chalazions typically occur on the upper lid due to blockage of the meibomian gland.
- **History:** Previous occurrence a few years ago suggests a recurring issue with the meibomian glands.



### Management:

1. **Warm Compresses:** Apply warm compresses to the affected eyelid for 10-15 minutes, 3-4 times a day. This can help to soften the hardened oil blocking the gland and promote drainage.
2. **Massage:** Gently massage the eyelid towards the base of the eyelashes after applying the warm compress.
3. **Good Lid Hygiene:** Maintain good eyelid hygiene by gently cleaning the eyelids with a mild baby shampoo diluted in water.

### When to Refer:

- **Persistent or Large Chalazion:** If the chalazion does not improve with conservative treatment within a few weeks, or if it continues to grow, refer to an ophthalmologist.
- **Recurrence:** Frequent recurrences may require a more thorough evaluation to rule out underlying conditions.
- **Surgical Intervention:** An ophthalmologist may perform a minor procedure to drain the chalazion if it does not resolve with conservative measures.

### Follow-Up:

Schedule a follow-up appointment in a few weeks to assess the response to treatment. If there is no improvement or the condition worsens, consider a referral to an ophthalmologist for further management.



## References:

- [American Academy of Ophthalmology](#)
- [NHS: Chalazion](#)

If you have any further questions or need additional guidance, feel free to ask!



Does not access PubMed - but journals directly

# How you ask the question will determine the emphasis

## Q possible causes of a lump in the lid

A lump in the eyelid can have various causes, ranging from benign conditions to more serious issues. Here are some possible causes:

### 1. Chalazion

- **Description:** A blocked meibomian gland causing a painless lump on the eyelid.
- **Symptoms:** Swelling, slight redness, no discharge.
- **Treatment:** Warm compresses, lid hygiene, possible surgical drainage if persistent.

### 2. Stye (Hordeolum)

- **Description:** An infection of an eyelash follicle or oil gland, typically caused by Staphylococcus bacteria.
- **Symptoms:** Painful, red lump near the edge of the eyelid, often with pus.
- **Treatment:** Warm compresses, antibiotics if necessary, possible incision and drainage.

### 3. Xanthelasma

- **Description:** Yellowish deposits of cholesterol under the skin, often near the inner canthus of the

## What is cause of multiple Lumps

- Adds in other causes, and discusses more investigations.
- You can ask AI questions relating to the answers

### Molluscum Contagiosum:

- **Description:** Viral infection causing small, dome-shaped lesions with a central dimple.
- **Symptoms:** Multiple small, painless lumps, often in clusters.
- **Treatment:** Cryotherapy, curettage, topical treatments.

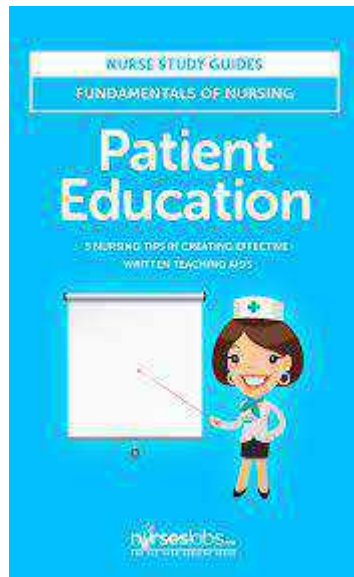
### Meibomian Gland Dysfunction (MGD):

- **Description:** Dysfunction of the meibomian glands, leading to blockage and inflammation.
- **Symptoms:** Dry eyes, multiple lumps, discomfort.
- **Treatment:** Warm compresses, lid massages, possible antibiotics.

# What else can AI help me with

## Access to Up-to-Date Information:

- **Clinical Guidelines:** AI can provide the latest clinical guidelines and best practices from reputable sources, ensuring that they stay updated with current standards of care.
- **Educational Resources:** AI tools can offer access to learning modules, case studies, and recent research, helping enhance one's knowledge in ophthalmology.



## Improved Patient Communication:

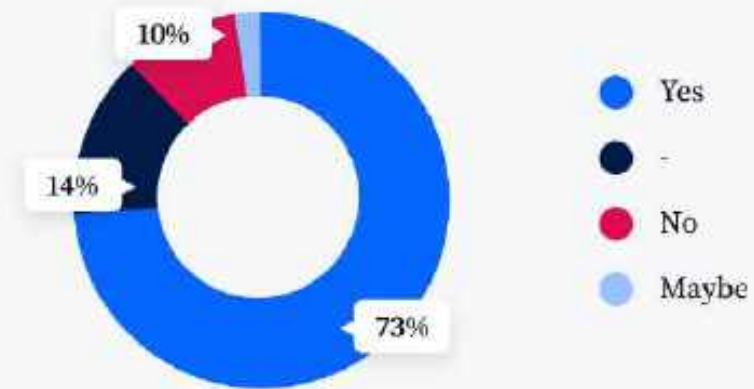
- **Patient Education:** AI can generate easy-to-understand explanations for patients about their conditions and the importance of follow-up care, improving patient compliance and outcomes.
- **Handouts – I have created 500+ over the years**
  - **80% of what you tell a patient is forgotten the moment they leave your surgery.**
  - **A handout often lasts for years**
  - **Creation with AI is minutes not hours – I do this regularly and upload to my Handouts page on my website.**
  - **Customise handouts for the patient.**
- **“Create me a patient handout for managing their first chalazion in their 12 year old child.”**

# Hallucinations

- Information that appears plausible but is entirely fabricated or incorrect.
  - 96% of users have experienced them
  - 46% frequently.
- 
- **Human in the Loop!**



Have you ever been misled by AI hallucinations?





# what is the world record of crossing the English channel entirely on foot

## Early GPT answer

The world record for crossing the English Channel entirely on foot is held by Christof Wandratsch of Germany, who completed the crossing in 14 hours and 51 minutes on August 14, 2020. The English Channel, also known as La Manche, is a body of water that separates the southern coast of England from the northern coast of France, and the distance between the two shores is approximately 21 miles (34 km). Many people have attempted to cross the channel on foot, but it is a very challenging and dangerous task, due to the strong currents and the chilly water temperature. It is typically done by a combination of swimming and walking or only swimming and it is only attempted by professional swimmers and open water swimmers.

## Google answer

Searched 5 sites

The fastest solo swim across the English Channel was completed by Andreas Waschburger from Germany on 8 September 2023. He set a new world record with a time of 6 hours, 45 minutes, and 25 seconds. This achievement broke the previous record of 6 hours and 55 minutes, which was set by Trent Grimsey from Australia on the same date in 2012 (Dover UK) (Wikipedia) (SwimSwam).



## ChatGPT 4o today

The English Channel is a body of water that separates southern England from northern France is not possible to cross it entirely on foot under normal circumstances. However, there are records for swimming across the English Channel, which is a well-known and challenging endeavour.

The record for swimming across the English Channel is notable:

- The fastest solo swim record is held by Trent Grimsey from Australia, who crossed the Channel in 6 hours and 55 minutes on 8 September 2012.



# GPTs

## Create your own Customised GPTs. Discover and create custom versions of ChatGPT that combine instructions, extra knowledge, and any combination of skills.

### Explore GPTs





- Create your own Focused ChatGPT's
- Ophthalmology is one I created
- Others have created and shared theirs
- Wide range of options to explore.
- In time - Dedicated, verified, approved AI assistants



Top Picks: [Writing](#) [Productivity](#) [Research & Analysis](#) [Education](#) [Lifestyle](#) [Programming](#)

### Featured

Curated top picks from this week

 <p><b>Video GPT by VEED</b> AI Video Maker. Generate videos for social media - YouTube, Instagram, TikTok and more! Free...</p> <p>By <a href="#">veedio</a></p>	 <p><b>Math Solver</b> Your advanced math solver and AI Tutor, offers step-by-step answers, and helps you learn math and eve...</p> <p>By <a href="#">studysun</a></p>
 <p><b>SQL Expert</b> SQL expert for optimization and queries.</p> <p>By <a href="#">Dmitry Zhuravov</a></p>	 <p><b>Framework Finder</b> Helps locate and apply frameworks to your problem.</p> <p>By <a href="#">Ethan B. Molick</a></p>

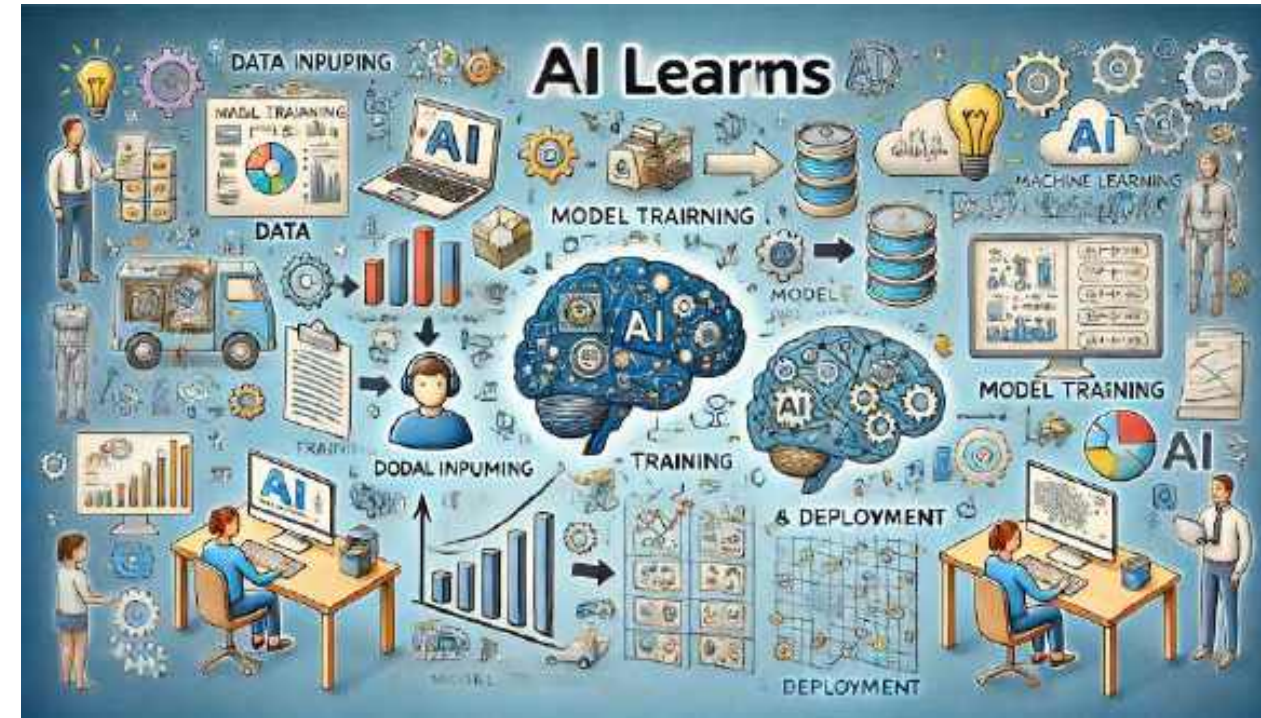
### Trending

Most popular GPTs by our community

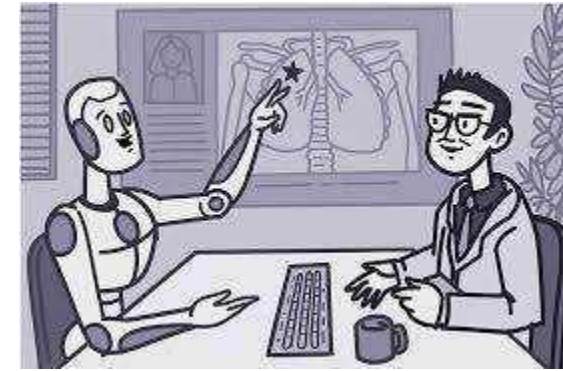
1  <p><b>image generator</b> A GPT specialized in generating and refining images with a mix of professional</p>	2  <p><b>Write For Me</b> Write tailored, engaging content with a focus on quality, relevance and precise</p>
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# It Learns!

- Research Breakthroughs
- Exposure to real world data
- Each feedback response improves the model
- Each real world correction helps the model for others
- OpenAI Data is not shared with others
- But companies using OpenAI may have different privacy rules
- You can opt out.



# AI in Ophthalmology - Its just the beginning



## Explosion of Papers on AI in Medicine

- Pubmed lists 190,470 papers AI In Medicine
- Examples of AI tools currently in use (e.g., deep learning algorithms, diagnostic software)

www.nature.com/eye



### REVIEW ARTICLE

## ChatGPT and Beyond: An overview of the growing field of large language models and their use in ophthalmology

Nikita Kedla<sup>1</sup>, Suvarsh Sanjeev<sup>2</sup>, Joshua Ong<sup>3</sup> and Jay Chhablani<sup>1</sup>

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ChatGPT, an artificial intelligence (AI) chatbot built on large language models (LLMs), has rapidly gained popularity. The benefits and limitations of this transformative technology have been discussed across various fields, including medicine. The widespread availability of ChatGPT has enabled clinicians to study how these tools could be used for a variety of tasks such as generating differential diagnosis lists, organizing patient notes, and synthesizing literature for scientific research. LLMs have shown promising capabilities in ophthalmology by performing well on the Ophthalmic Knowledge Assessment Program, providing fairly accurate responses to questions about retinal diseases, and in generating differential diagnoses list. There are current limitations to this technology, including the propensity of LLMs to "hallucinate", or confidently generate false information; their potential role in perpetuating biases in medicine; and the challenges in incorporating LLMs into research without allowing "AI-plagiarism" or publication of false information. In this paper, we provide a balanced overview of what LLMs are and introduce some of the LLMs that have been generated in the past few years. We discuss recent literature evaluating the role of these language models in medicine with a focus on ChatGPT. The field of AI is fast-paced, and new applications based on LLMs are being generated rapidly; therefore, it is important for ophthalmologists to be aware of how this technology works and how it may impact patient care. Here, we discuss the benefits, limitations, and future advancements of LLMs in patient care and research.

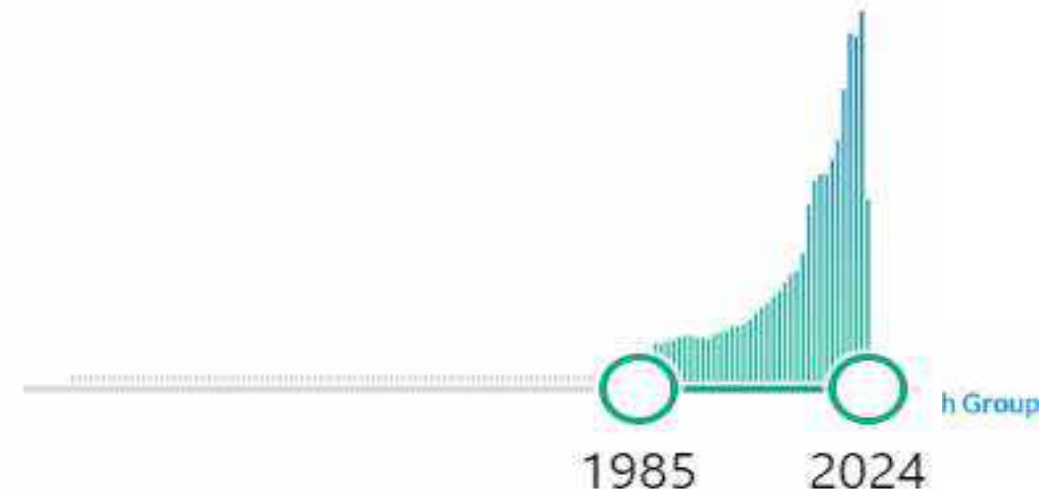
Eye (2024) 38:1252–1261; <https://doi.org/10.1038/s41433-023-02915-z>

**We are but scratching the surface of the Possibilities**

**Already AI ChatGPT 4o is a useful aid in the consulting room Now**

**In time Patient data will be reviewed by AI**

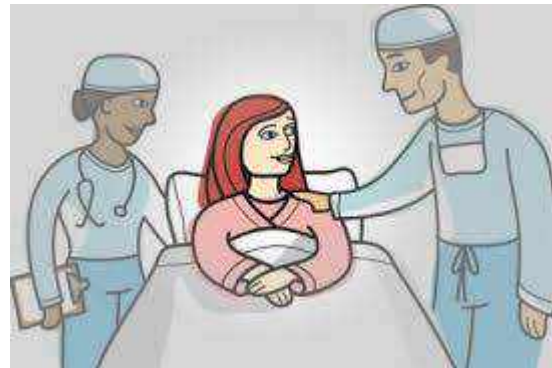
**Aiding customised treatment plans, even customised drugs**



# Higher level of Quality of consultation with AI assistance

## Performance of ChatGPT improves

- safeguards for our patients.
- protecting vulnerable populations from biases
- Evaluating the potential harm or risk of acting on the answers provided by LLMs, such as ChatGPT.
- This will be particularly important for high-level decision making questions that may be challenging to train for because of inconclusive training data on the internet, reflecting the variability in research data as well as global practice patterns.
- cautious when considering the potential clinical applications of this technology.
- Loss or gain on empathy



## Work along side Health care Provider

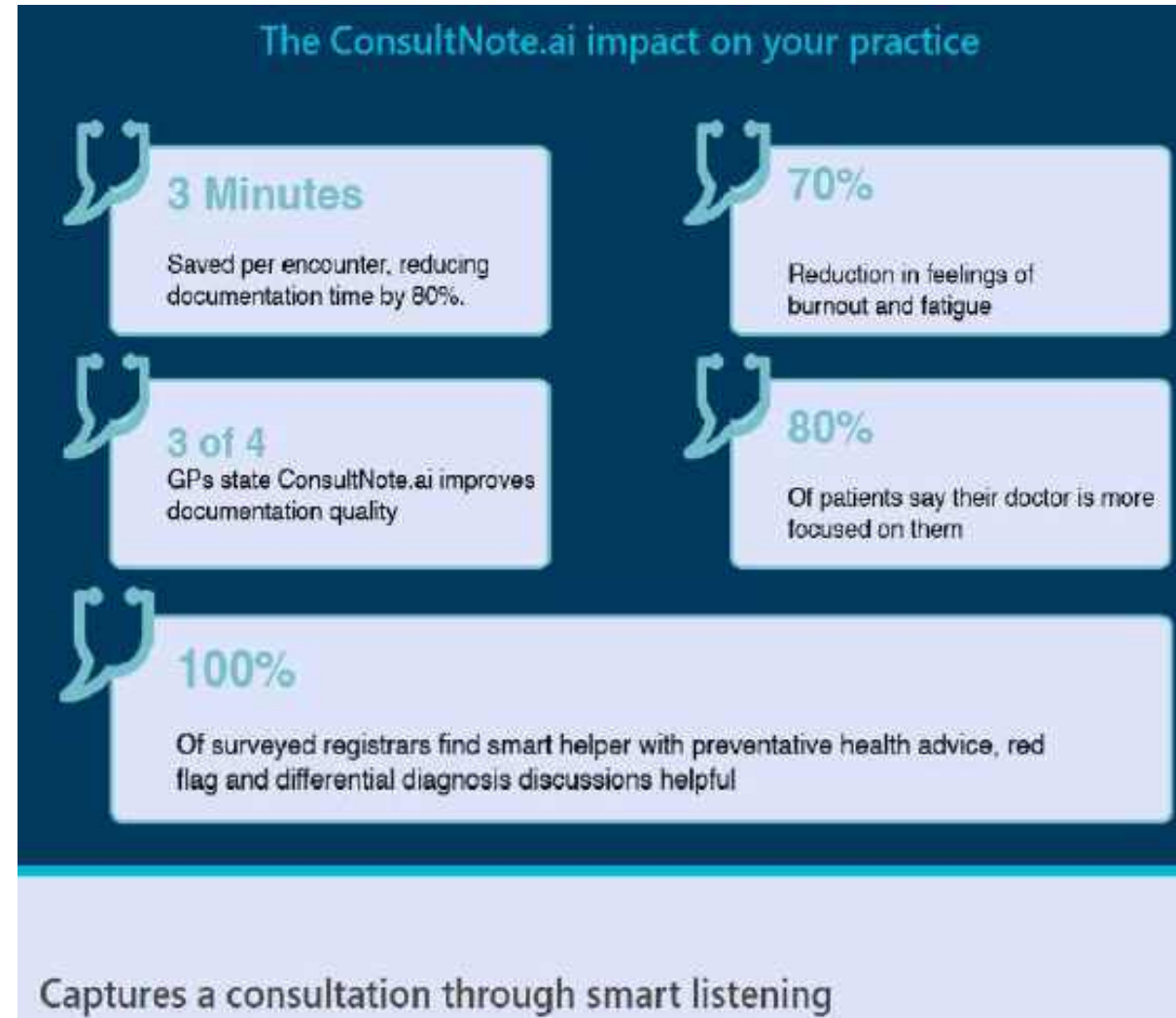
- Enquiring minds
- Every level of Health care providers can benefit by having an AI assistant
- Train AI assistants to the healthcare provider role
- ConsultNote.ai



# Conclusion - Your new Assistant is here - AI Intern

## AI in Ophthalmology

- Accuracy in Exams 56% to 84% with ChatGPT 4 in Ophthoquestions trial.
- Similar results in other specialities
- **Clinical Decision Support:**
- ChatGPT's ability to assist with clinical decision-making in ophthalmology is still developing. While it can offer valuable insights and preliminary information, it is not yet reliable enough for making final clinical decisions without human oversight
- Information retrieval - involve the patient
- Note taking - to relieve the burden of data entry
- Focusing on the patient contact, not the computer
- E.g. ConsultNote.ai in Australia in general practice is first step.



ChatGPT 4o is a Useful Aid  
Replaces the handbook in the pocket  
But Far Far more is to come!

# Q&A's



**WHAT  
WOULD  
THE DOCTOR  
DO?**



# Thank you for watching

For any enquiries please contact:

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