OpenEvidence®

人工智慧驅動醫學資訊與臨床決策輔助平臺

臺北榮總圖書館

2024年11月

INTRODUCTION

- 自Mayo Clinic Platform Accelerate推出
- 結合醫學領域與大型語言模型
- 第一個USMLE成績超過90%的AI
- 對話式搜尋，易於理解的QA介面
- 呈現經由彙集、綜整的醫學參考資訊，並附註引用資料與引用原由，另提供延伸問題深入挖掘
- 提供APP
- CB Insights評選為2024百大AI
- 與Elsevier Health合作開發ClinicalKey AI

What is OpenEvidence

The world's leading AI-powered medical search platform.

An artificial intelligence system to aggregate, synthesize, and visualize clinically relevant evidence in understandable, accessible formats that can be used to make more evidenced-based decisions and improve patient outcomes.

MAYO CLINIC PLATFORM

Launched during the Mayo Clinic Platform Accelerate program

The NEW ENGLAND JOURNAL of MEDICINE

Featured by the New England Journal of Medicine AI



ELSEVIER

Powering Elsevier's ClinicalKey AI
(Lancet; Cell; Gray's Anatomy; 2000+ journals)

https://www.openevidence.com/about

OpenEvidence Profiled in Forbes

公開向
UpToDate
下戰書

Forbes

Source: PitchBook, *as of 7/25/2023 Forbes

根據 PitchBook 的數據，過去十年，風險資本投資者已向美國專注於醫療保健的人工智能和機器學習初創公司投入了超過 460 億美元。投資在 2021 年達到峰值 134 億美元，並在 2022 年降至 103 億美元。今年迄今為止，初創公司已通過 205 筆交易籌集了 30 億美元。

納德勤於2021 年11 月創立了OpenEvidence。他自掏腰包投資了500 萬美元後，於2022 年7 月完成了來自外部投資者的2700 萬美元B 輪融資，對這家初創公司的估值為4.25 億美元。他向前 Kensho 投資者開放了這輪融資，其中包括億萬富翁風險投資家 Jim Breyer、億萬富翁 Vista Equity Partners 聯合創始人 Brian Sheth 和投資銀行家 Ken Moelis 等。3 月，OpenEvidence 被選中參與 Mayo Clinic 平台加速器。納德勤表示，從那時起，已有超過 10,000 名臨床醫生報名參加搶先體驗，這也是他現在不再隱秘的原因。

Nadler 表示，OpenEvidence 正試圖挑戰荷蘭全球數據公司 Wolters Kluwer 提供的名為 UpToDate 的大型現有數據庫，該數據庫被全球 200 萬醫護人員使用。Wolters Kluwer 健康部門的臨床解決方案（包括 UpToDate）在 2022 年創造了超過 9 億美元的收入。Wolters Kluwer Health 發言人 Suzanne Moran 表示，UpToDate 依靠 7,000 多名人類專家撰寫和編輯有關醫療主題的條目。“當重要的新信息發佈時，UpToDate 的主題就會被修改，”萊蘭在一份聲明中說。編輯審閱 420 多種同行評審期刊。

Announcements



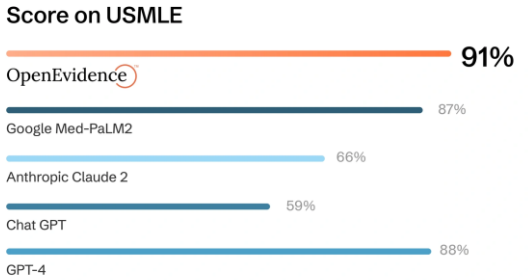
OpenEvidence named one of the Top 100 AI Companies in the World

April 5, 2024



OpenEvidence Powers Elsevier's ClinicalKey AI

March 13, 2024



OpenEvidence AI becomes the first AI in history to score above 90% on the United States Medical Licensing Examination (USMLE)

July 14, 2023



OpenEvidence Wins Best Paper Award at 2023 Conference on Health, Inference, and Learning (CHIL)

June 29, 2023

REGISTRATION

- 免費且無限制的使用權限
  - 醫療保健專業人員
    Health Care Professionals
  - 醫學生
    Medical Students
- 須註冊並上傳證明文件

Before Ask OpenEvidence

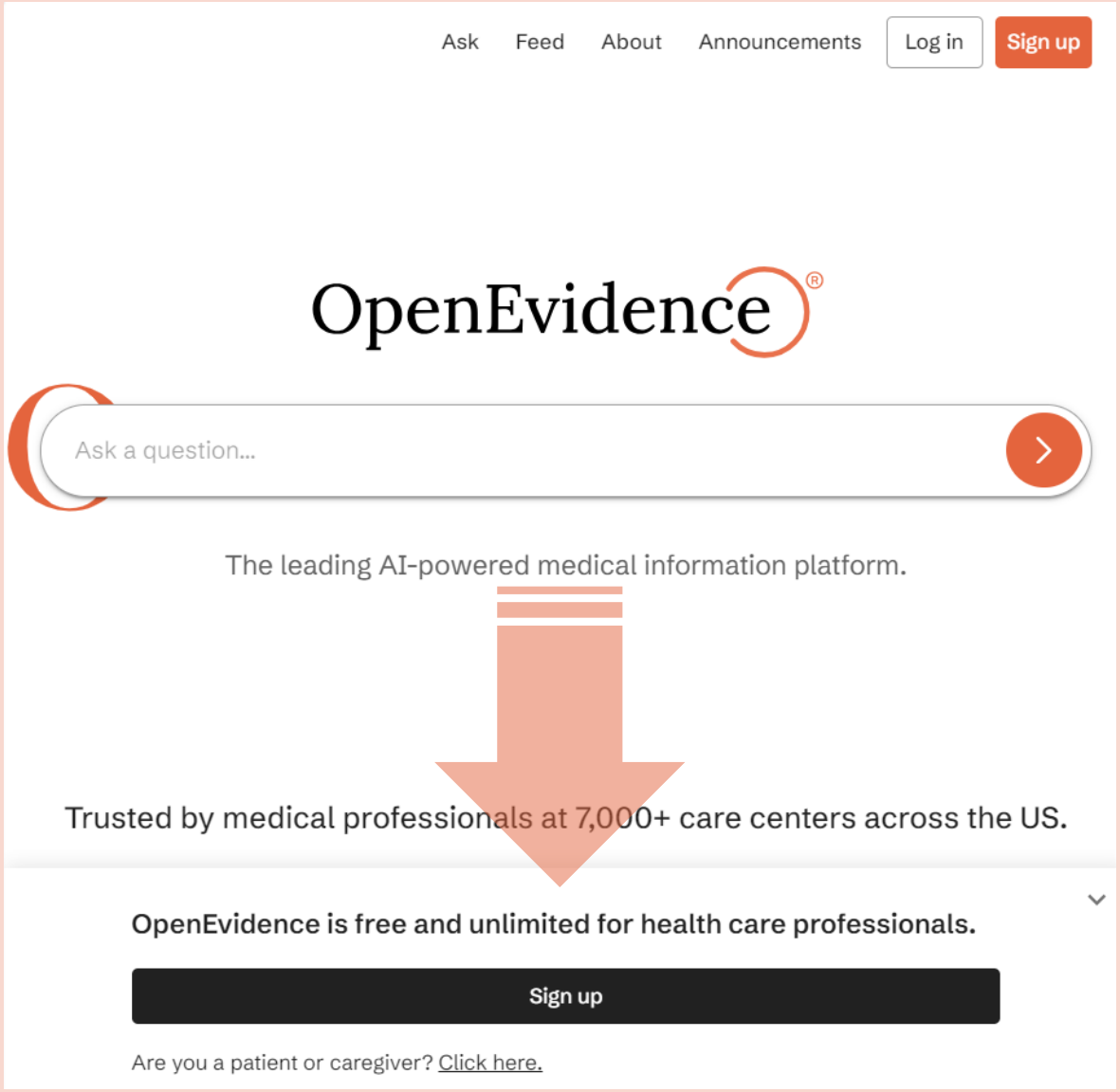
Must **register an account**.

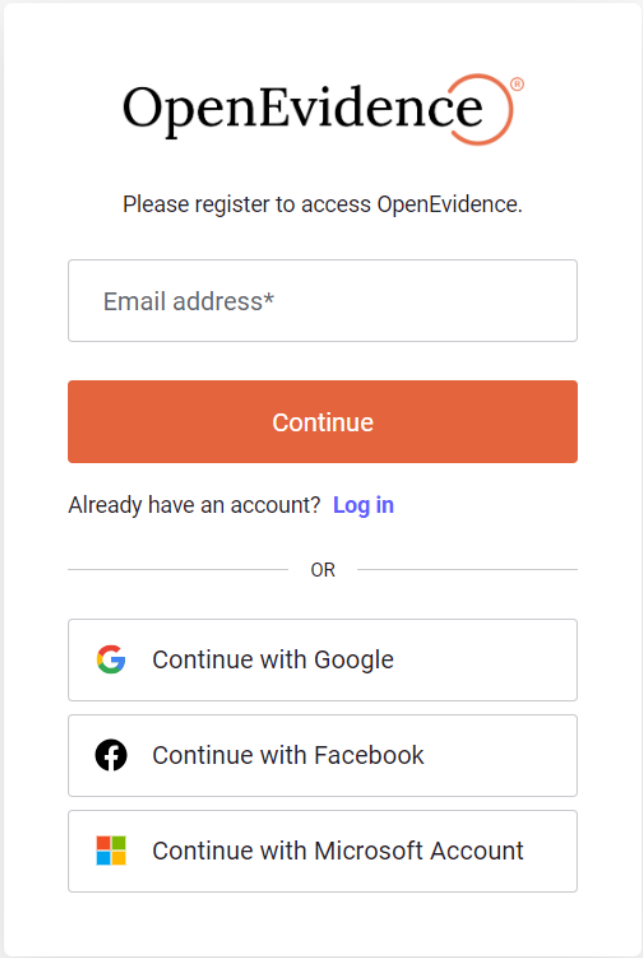
OpenEvidence is **free and unlimited** for health care professionals and medical students*.

Non-clinician learners or clinicians who do not wish to register their account with an National Provider Identifier (NPI) will be limited to **two searches per week****.

* Need to VERIFY health care professional credentials.
** Unverified Users Investigation: two searches per day in August 2023; two searches per week in November 2024.

Register an Account





Verify Health Care Professionals

OpenEvidence

Please set your password to continue to OpenEvidence

[redacted] Edit

Password*

••••••••••••

Your password must contain:

- ✓ At least 8 characters
- ✓ At least 3 of the following:
  - ✓ Lower case letters (a-z)
  - ✓ Upper case letters (A-Z)
  - ✓ Numbers (0-9)
  - ✓ Special characters (e.g. !@#$%^&*)

Continue

Already have an account? Log in

OpenEvidence

Complete your registration

Name *

Occupation *

Verify your health care professional credentials

Unlimited question-asking on OpenEvidence is free for verified health care professionals (HCPs). To verify you are an HCP, please enter your NPI (or international equivalent) below.

Identifier *
NPI (United States)

Number

If you are a HCP without one of these identifiers, please contact us at help@openevidence.com.

How did you hear about us?

Continue

By clicking "Continue" you agree to our Terms of Service and Privacy Policy.

Are you a patient or caregiver? Click here.

Occupation *

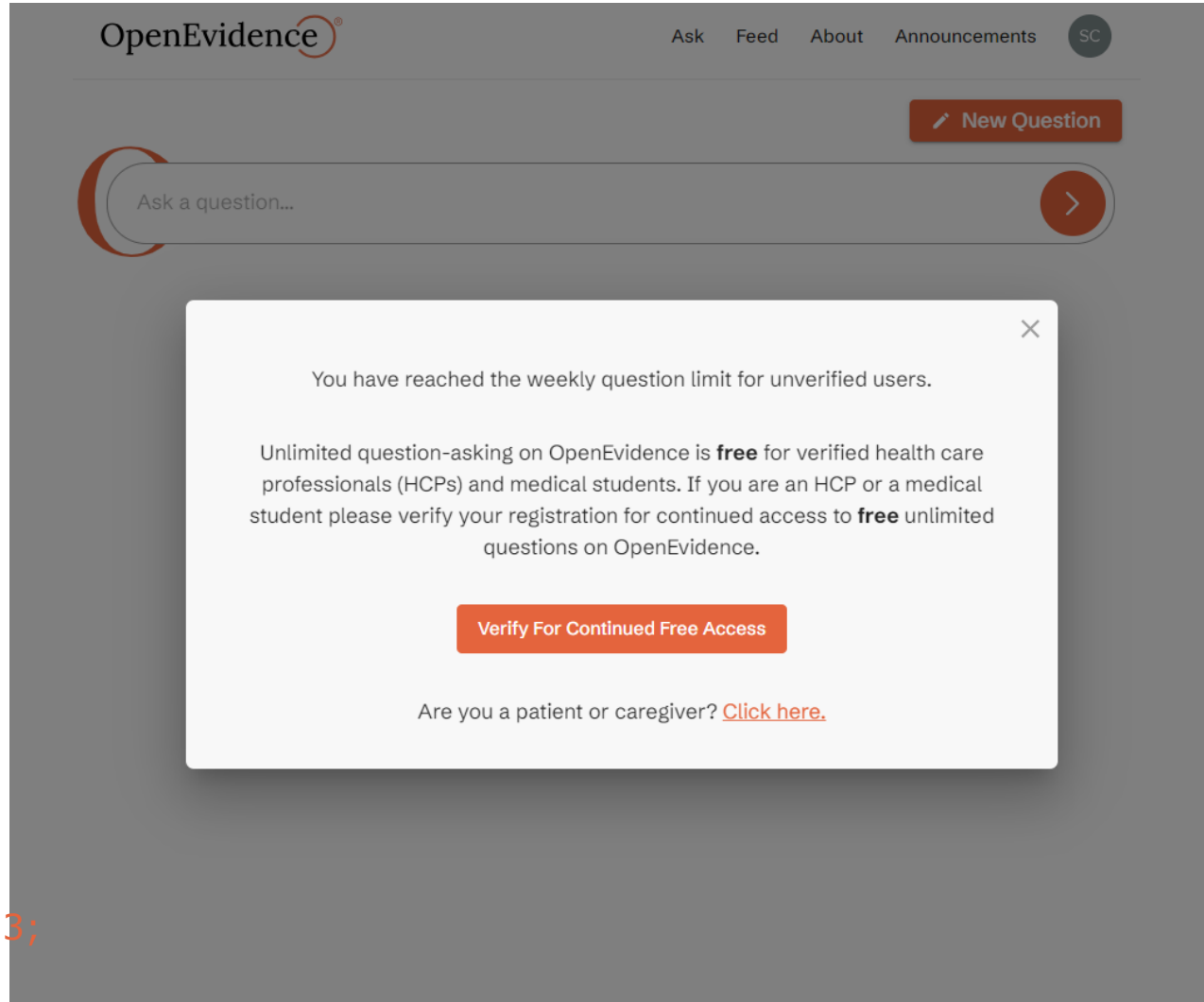
- Physician
- Nurse
- Physician Assistant
- Pharmacist
- Medical Student
- Optometrist
- Psychologist
- Dentist
- Other

Identifier *
NPI (United States)

- NPI (United States)
- GMC Number (United Kingdom)
- MINC (Canada)
- AHPRA (Australia)
- CRM Number (Brazil)
- MOH License Number (Israel)
- Other (Upload Documents)

Limitation of Unverified Users

- Limit **two searches per week**.
- Limitation for 7-day period since the second question of the day was submitted.



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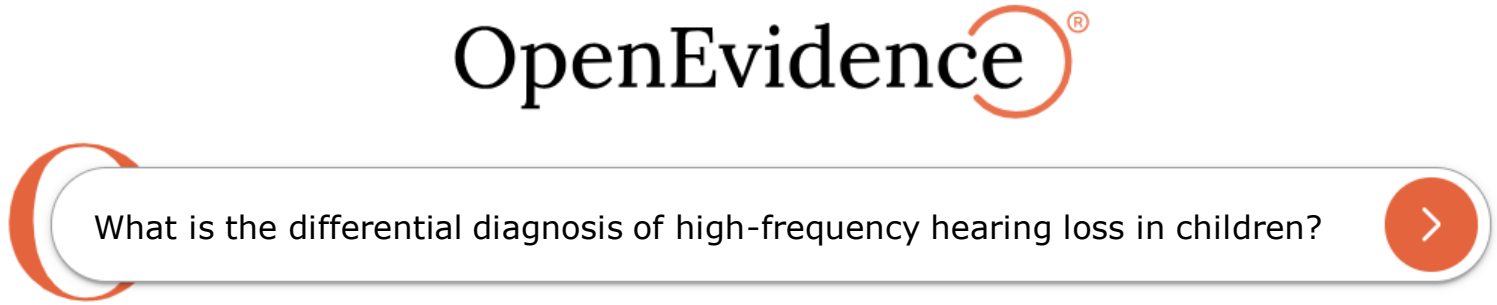
APPLICATION

- 對話式搜尋，易於理解的QA介面
- 呈現經由彙集、綜整的醫學參考資訊，並附註引用資料與引用原由，另提供延伸問題深入挖掘
- 支援中文問答

Ask OpenEvidence



Trusted by medical professionals at 7,000+ care centers across the US.

Penn Medicine

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New Question

What is the differential diagnosis of high-frequency hearing loss in children?

The differential diagnosis of high-frequency hearing loss in children includes several potential etiologies:

1. **Noise-induced hearing loss**: Exposure to loud noises can damage the hair cells in the cochlea, particularly affecting high-frequency hearing.[1]

2. **Genetic factors**: Genetic mutations, such as those in the GJB2 gene, can lead to sensorineural hearing loss that may initially present with high-frequency deficits.[2]

3. **Otitis media**: Both acute otitis media and otitis media with effusion can result in high-frequency hearing loss. Persistent elevation of high-frequency thresholds has been observed following episodes of otitis media.[3-4]

4. **Auditory neuropathy spectrum disorder (ANSD)**: This condition can present with high-frequency hearing loss and is often associated with cochlear nerve deficiency or genetic mutations.[5]

5. **Sudden sensorineural hearing loss (SSNHL)**: Although less common in children, SSNHL can present with high-frequency hearing loss and may be associated with viral infections or other idiopathic causes.[6]

6. **Extended high-frequency hearing impairment**: Even in the absence of clinically significant hearing loss at standard frequencies, children can exhibit deficits in extended high frequencies (>8 kHz), which can affect speech-in-noise recognition and cochlear function.[7]

7. **Vitamin D deficiency and hypocalcemia**: These conditions have been associated with sensorineural hearing loss, including high-frequency deficits.[8]

8. **Congenital infections**: Infections such as cytomegalovirus (CMV) can lead to sensorineural hearing loss, often affecting high frequencies.[9]

A thorough diagnostic evaluation, including audiometric testing, genetic testing, and imaging studies, is essential to determine the specific etiology in each case.[10]

Share Helpful Not Helpful

References

1. Toward a Differential Diagnosis of Hidden Hearing Loss in Humans. Details
Liberman MC, Epstein MJ, Cleveland SS, Wang H, Maison SF.
PloS One. 2016;11(9):e0162726. doi:10.1371/journal.pone.0162726.

2. Full Etiologic Spectrum of Pediatric Severe to Profound Hearing Loss of Consecutive 119 Cases. Details
Kim YS, Kim Y, Jeon HW, et al.
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3. Extended High-Frequency Hearing Loss Following the First Episode of Otitis Media. Details
Cordeiro FP, da Costa Monsanto R, Kasemodel ALP, de Almeida Gondra L, de Oliveira Penido N.
The Laryngoscope. 2018;128(12):2879-2884. doi:10.1002/lary.27309.

4. Otitis Media With Effusion in Children: Cross-Frequency Correlation in Pure Tone Audiometry. Details
Chow AHC, Cai T, McPherson B, Yang F.
PloS One. 2019;14(8):e0221405. doi:10.1371/journal.pone.0221405.

5. An Integrative Approach for Pediatric Auditory Neuropathy Spectrum Disorders: Revisiting Etiologies and Exploring the Prognostic Utility of Auditory Steady-State Response. Details
Lin PH, Hsu CJ, Lin YH, et al.
Scientific Reports. 2020;10(1):9816. doi:10.1038/s41598-020-66877-y.

每項提問回應係以
彙集、綜整內容呈現
且附註醫學參考資料來源

doi:10.1097/MAO.0000000000002676.

9. Hearing Loss in Children: A Review. Details
Lieu JEC, Kenna M, Anne S, Davidson L.
Jama. 2020;324(21):2195-2205. doi:10.1001/jama.2020.17647.
☆ Leading Journal

10. Diagnostic Evaluation of Children With Sensorineural Hearing Loss. Details
Prosser JD, Cohen AP, Greinwald JH.
Otolaryngologic Clinics of North America. 2015;48(6):975-82. doi:10.1016/j.otc.2015.07.004.

Follow-Up Questions

What are the common causes of high-frequency hearing loss in children?

What diagnostic tests are recommended for high-frequency hearing loss in children?

What are the potential treatments for high-frequency hearing loss in children?

OpenEvidence

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資料來源串接至PubMed
註明引用原由
提供延伸問題深入挖掘

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6. Sudden Sensorineural Hearing Loss in Children: A Report of 75 Cases. Details
Qian Y, Zhong S, Hu G, et al.
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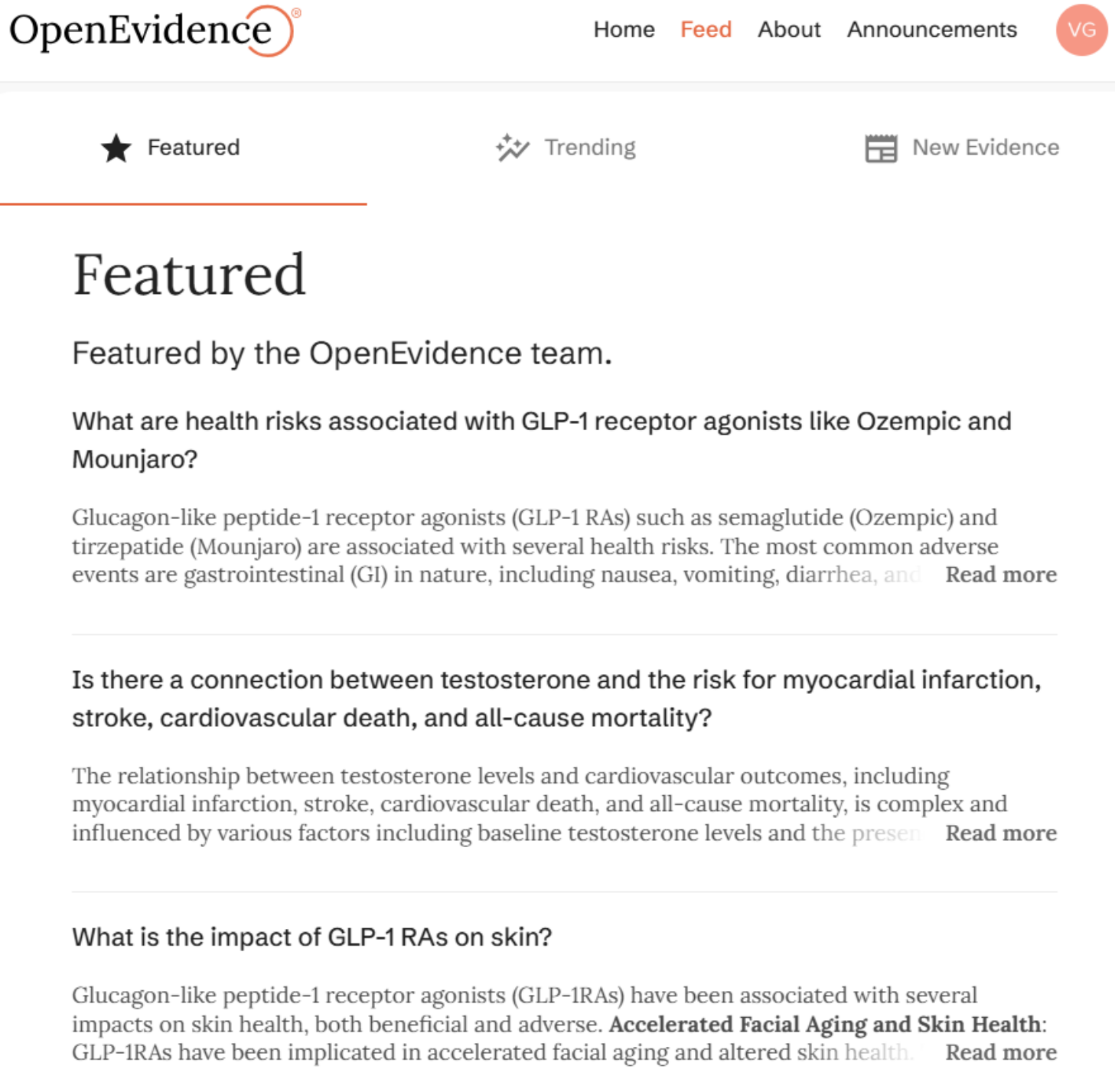
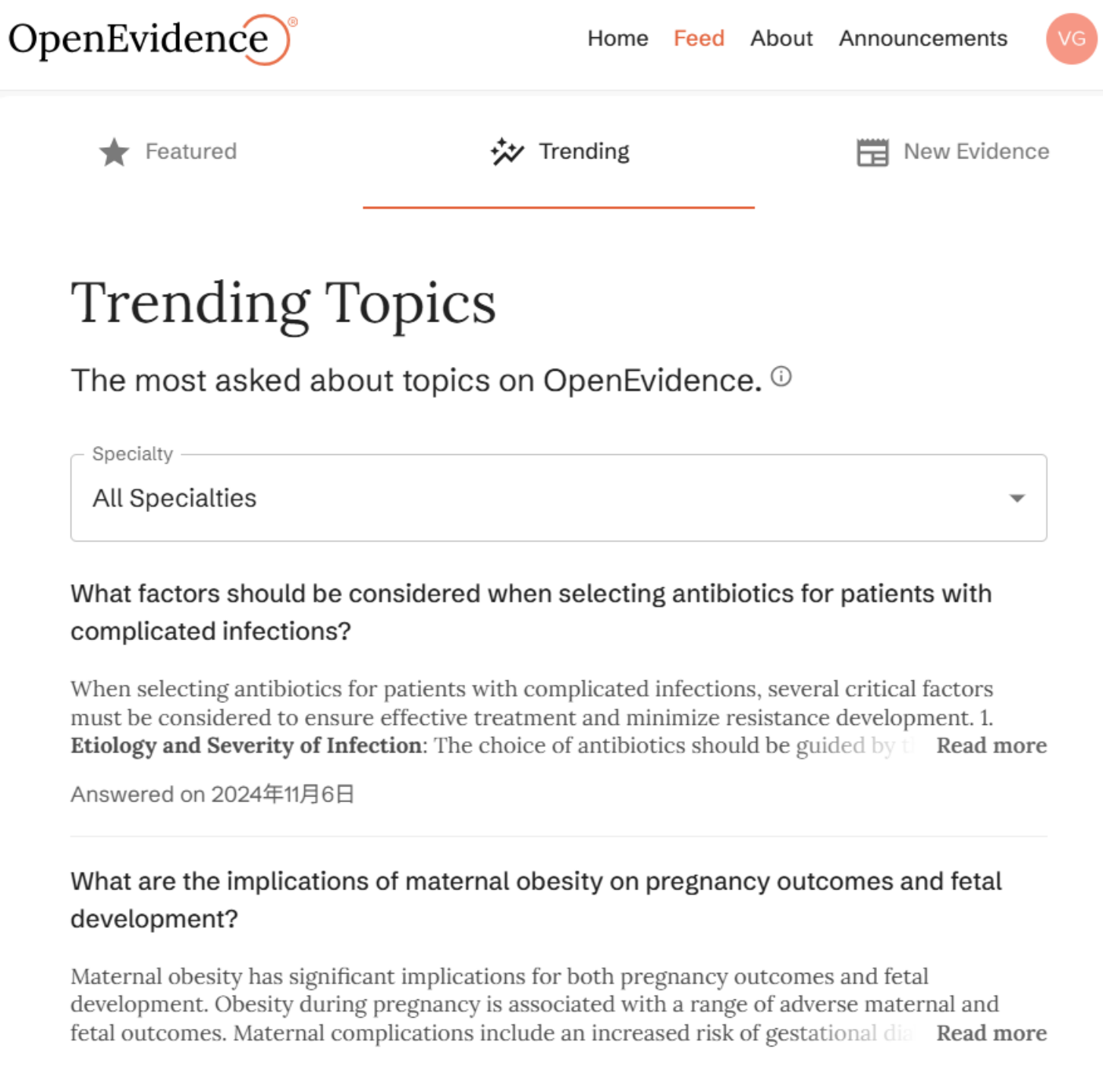


OpenEvidence團隊
精選題目

熱門話題
專科主題分類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The most asked about topics on OpenEvidence.
Specialty
All Specialties
What factors should be considered when selecting antibiotics for patients with complicated infections?
When selecting antibiotics for patients with complicated infections, several critical factors must be considered to ensure effective treatment and minimize resistance development. 1. **Etiology and Severity of Infection**: The choice of antibiotics should be guided by t
Read more
Answered on 2024年11月6日
What are the implications of maternal obesity on pregnancy outcomes and fetal development?
Maternal obesity has significant implications for both pregnancy outcomes and fetal development. Obesity during pregnancy is associated with a range of adverse maternal and fetal outcomes. Maternal complications include an increased risk of gestational dia
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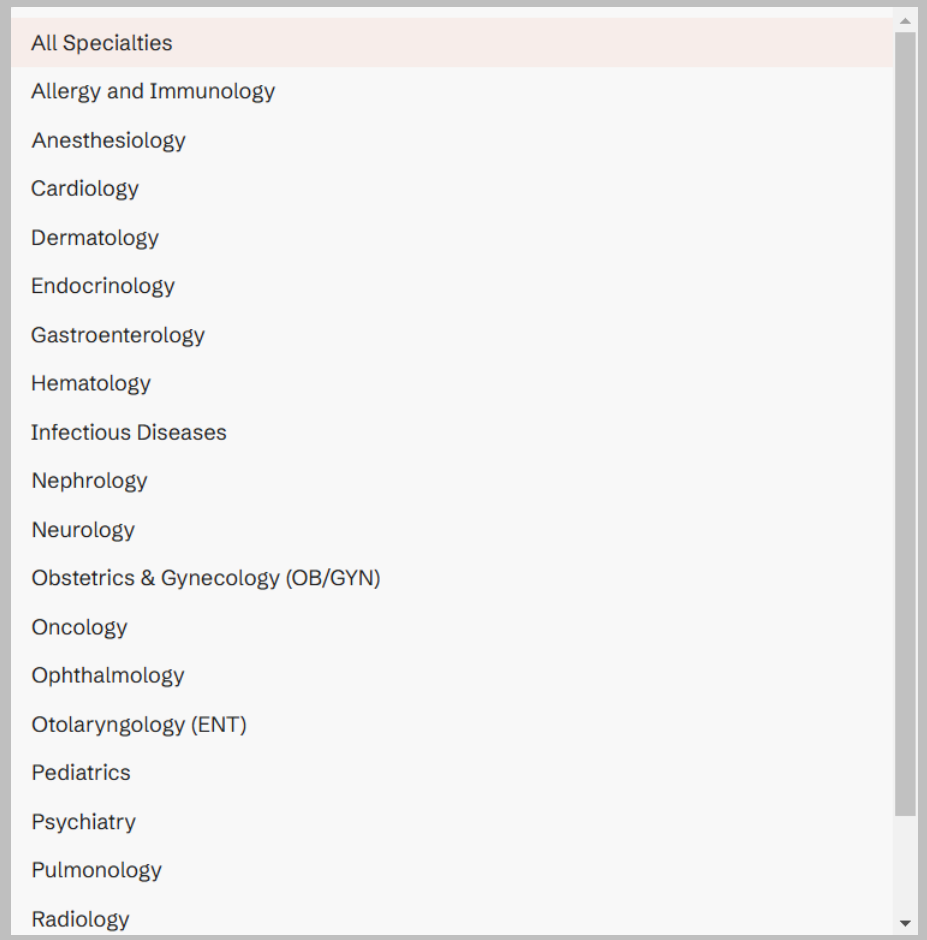
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Dermatology
Endocrinology
Gastroenterology
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Ophthalmology
Otolaryngology (ENT)
Pediatrics
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Radiology

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OpenEvidence

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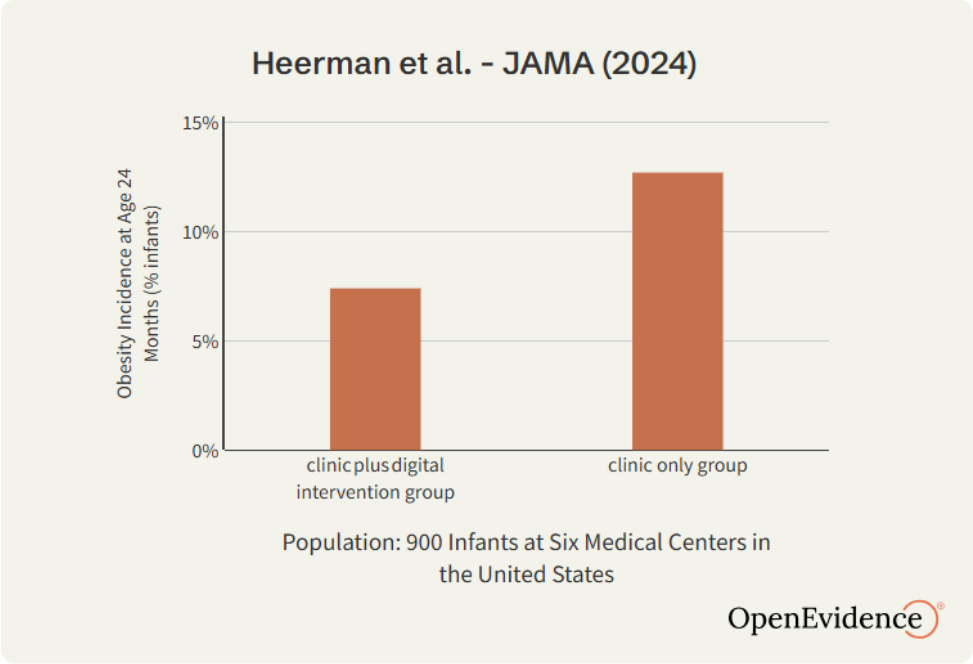
Featured Trending New Evidence

New Evidence

The latest landmark evidence to keep you ahead of the curve.

Specialty
All Specialties

Adding a Digital Intervention to Clinic-Based Health Behavior Counseling Reduced the Incidence of Obesity in Infants Aged 24 Months



TL;Dr.: In a study published in JAMA, Heerman and colleagues investigated if adding a digital intervention component to clinic-based health behavior counseling prevented obesity in infants during the first two years of life. The digital intervention consisted of tailored, literacy-based and **Read more**

2024年11月6日

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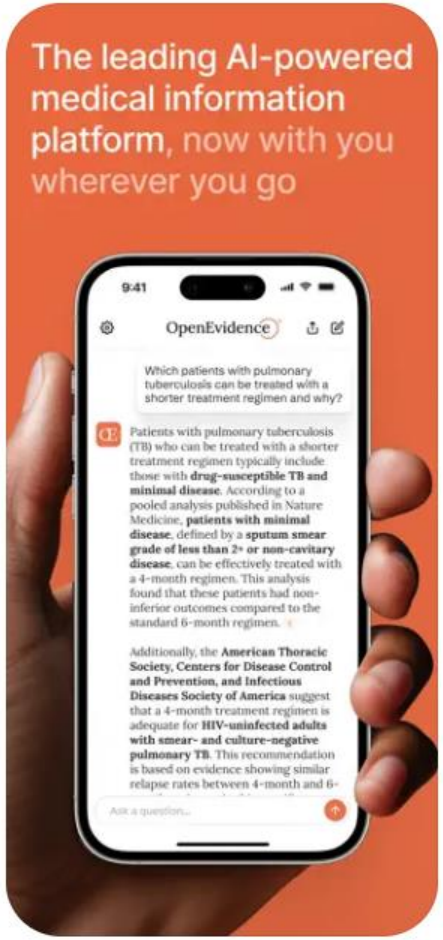



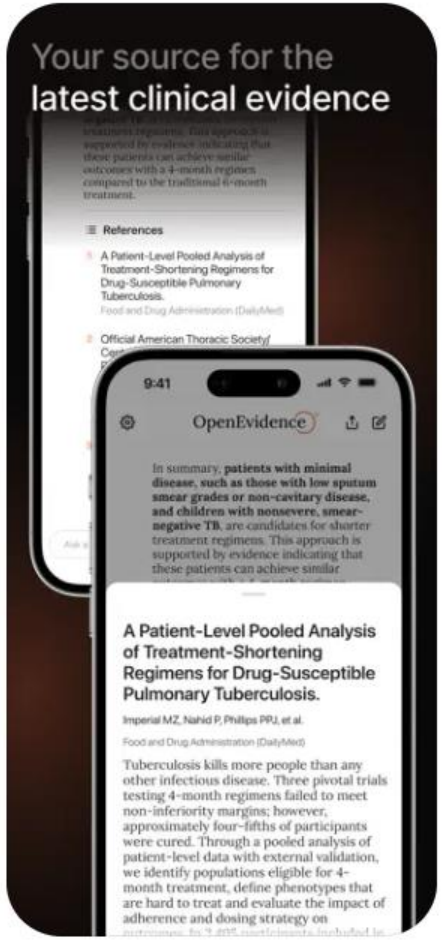

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OpenEvidence is an experimental technology demonstrator.

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It is the responsibility of the user to ensure questions do **NOT** contain protected health information (PHI) or any information that violates the privacy of any person.

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OpenEvidence may disclose, distribute, transfer, and sell collected data or the data in connection with customers' use.

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Last Updated: April 30, 2024

Thank YOU.

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