

2026-03-26

# 從效率到負責任的AI使用 — 文獻搜尋、查核與揭露

成功大學醫學圖書分館

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著作權所有，使用請註明出處

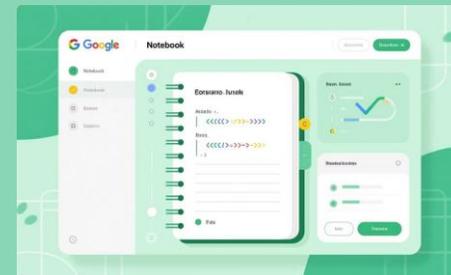
AI秒新日異，靜態講義無法與時俱進，請留意參考！

# 文獻搜尋: 推薦AI工具

通用型

學術型AI

知識庫型AI



ChatGPT  
Gemini  
Claude

OpenEvidence  
[醫學適用]

Scopus AI  
WoS RA

Google  
Notebook LM

資訊  
來源:

網路無限寬廣(免費全文)

高影響力期刊(含全文)  
臨床指引

學術引文資料庫(摘要)

自建可信任的來源

優勢  
特色:

溝通門檻低/友善

萃取研究細節列表

內建多元視角 click!

支援多模態內容創建

能處理多樣化任務

效率搜尋醫學文獻

參考文獻:如假包換

可信  
控制:

較低



較高

負責任的AI原則/避免偏見

「急性缺血性腦中風患者，在延長時間窗（>4.5 小時）接受靜脈血栓溶解治療之臨床療效與安全性？」

# 可以更嚴格地批判嗎？

請GhatGPT「真正」  
扮演審查者嚴格角色

## 📌 一、創新性批判 (Novelty Criticism)

### 1. 國際研究已經相當完整

- EXTEND、WAKE-UP、EPITHET、DEFUSE-3 等大型 RCT 與 meta-analysis 已廣泛討論延長時間窗 IVT 的療效與安全性。
- 國際共識已逐漸形成：「在影像選擇下，延長窗 IVT 在特定患者有效」。
- 因此，單純提出「>4.5 小時是否有效與安全」可能被認為缺乏 **真正的原創性**，容易落入「複製國外結果」的質疑。

### 2. 缺乏明確研究切入點

- 題目本身過於寬泛，沒有針對 **族群特異性、診斷流程、治療模式差異** 等切口。
- 若只是「驗證延長時間窗療效」，審查委員可能會問：**與既有證據相比，您的研究究竟要回答什麼新問題？**

### 3. 可能被視為「低階臨床研究」

- 若設計為單一醫院或回溯性登錄研究，容易被批評為 **規模小、設計落後國際、無法改變臨床實務**。
- 委員可能會認為「這題雖然重要，但如果只是單純統計國內病例數據，學術價值有限」。

## 📌 二、重要性批判 (Significance Criticism)

### 1. 研究結果的「外部有效性」存疑

- 即便完成台灣或亞洲的延長窗研究，委員可能會質疑：
  - 👉 「亞洲人種差異是否足以支持重新做一次大規模研究？」
  - 👉 「既有歐美 RCT 都已納入亞洲患者，真的需要再做？」

### 2. 健保政策影響有限

- 委員可能會認為：即使研究證實延長時間窗有效，健保是否給付還牽涉到**成本效益、資源分配、醫療倫理**，單靠單一研究很難直接改變政策。
- 因此，題目的「政策貢獻度」可能被質疑過度誇大。

### 3. 臨床流程面挑戰

- 延長窗 IVT 幾乎必須依賴 **先進影像 (CT perfusion / MRI DWI-FLAIR mismatch)**。
- 但在台灣多數中風中心或基層醫院，影像資源有限，委員可能會認為研究結果的**臨床可落實性不足**。

### 4. 與 EVT (血管內取栓術) 的角色重疊

- 在延長時間窗 (6-24 小時)，EVT 已被國際證實有效 (DAWN、DEFUSE-3)。
- 審查委員可能質疑：既然延長窗大血管閉塞已優先考慮 EVT，那 IVT 的角色是否還有足夠臨床價值值得投資研究？

## 📌 改進建議 (避免被批判)

若要通過嚴格審查，題目建議從以下切口切入：

1. **族群特色**：明確標示「亞洲人/台灣患者」在延長窗 IVT 的風險與預後差異。
2. **臨床落地性**：研究可聚焦於「有限影像資源下，如何篩選延長窗患者」。
3. **創新方法**：加入 AI 影像分析、血液生物標誌物 作為輔助決策工具。
4. **比較研究**：設計為「延長窗 IVT vs EVT 或 EVT+IVT 的臨床結局比較」，凸顯臨床決策價值。

# 文獻證據支持

## JOURNAL ARTICLE

Introduction 背景 | 流病  
現況 | 缺口

Methods 方法學, 理論架構  
測量工具

Results

Discussion 本篇與  
其他研究差異

VS



## GRANT PROPOSAL

Budget	Table	
1	2	3
2	3	6
3	10	10



Novelty & Importance

Summary 獨特性  
研究缺口

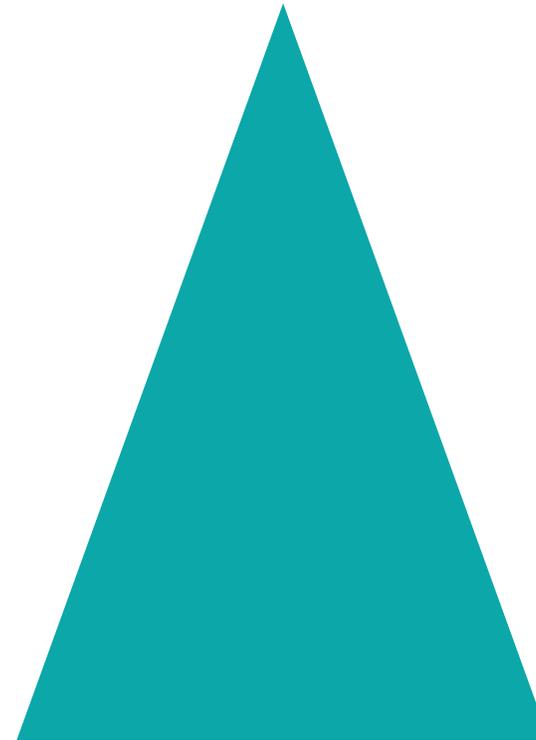
# AI幫文獻回顧

研究終點

- 文獻回顧生成
- 文獻篩選與萃取
- 參考文獻蒐集
- 建立骨架 → 提綱挈領
- 檢索詞 / 檢索策略形成

研究起點

坐享其成多



坐享其成少

# 學術研究需要的AI工具



# 圖書館提供的AI增值資料庫

## 快速連結



電子資源查詢



空間預約



圖書預約續借



博碩士論文服務



各種身份讀者服務



館藏資源利用教育



學術影響力



電子資料庫(具AI增值功能)

# Scopus AI





## Start exploring

[Documents](#)[Authors](#)[Researcher Discovery](#)[Organizations](#)[Scopus AI](#)[New](#)

Temporary conversation

### Explore topics and discover relevant references since 2003

What would you like to learn more about?

Deep research

[Show conversation history](#)

#### Conversation examples

- ↳ What impact do microplastic pollutants have on marine biodiversity in coastal regions?
- ↳ How can international cooperation be improved to effectively address global climate change?
- ↳ How does chronic sleep deprivation affect cognitive decline in aging populations?



## Start exploring

[Documents](#)[Authors](#)[Researcher Discovery](#)[Organizations](#)[Scopus AI](#)

New

Temporary conversation 

Explore topics and discover relevant references since 2003

**Is intravenous thrombolysis beyond the 4.5-hour window effective and safe in acute ischemic stroke?**

 Deep research[Show conversation history](#)

### Conversation examples

- ↳ What impact do microplastic pollutants have on marine biodiversity in coastal regions?
- ↳ How can international cooperation be improved to effectively address global climate change?
- ↳ How does chronic sleep deprivation affect cognitive decline in aging populations?

搜尋  
機制

- ☑ Creating a plan to answer your query
- ☑ Performing natural language search:
  - Is intravenous thrombolysis effective and safe beyond the 4.5-hour window in acute ischemic stroke?
- ☑ Performing keyword search:
  - ("intravenous thrombolysis" OR "IV thrombolysis" OR "thrombolytic therapy") AND ("acute ischemic stroke" OR "ischemic stroke" OR "cerebral infarction") AND ("beyond" OR "after" OR "over" OR "exceeding") AND ("4.5 hours" OR "four point five hours" OR "time window" OR "treatment window") AND ("outcomes" OR "efficacy" OR "safety" OR "complications")
- ☑ Generating summary

摘要

**Summary**  
**Effectiveness and Safety of Intravenous Thrombolysis Beyond the 4.5-Hour Window in Acute Ischemic Stroke**

**Effectiveness:**

- **Improved Outcomes:** Several studies indicate that intravenous thrombolysis (IVT) beyond the 4.5-hour window can be effective in improving functional outcomes. A meta-analysis of randomized clinical trials (RCTs) found that IVT significantly improved excellent functional outcomes (modified Rankin Scale [mRS] scores of 0-1) and good functional outcomes (mRS scores of 0-2) at 90 days [1][2][3]. Another study reported that IVT with tenecteplase or alteplase enhanced 90-day excellent outcomes in patients treated within 4.5 to 24 hours [1].
- **MRI and PCT Selection:** The use of MRI and perfusion computed tomography (PCT) to select patients with salvageable brain tissue has shown promise. Studies suggest that MRI-selected patients treated up to 6 hours after stroke onset can benefit from IVT without increased mortality or symptomatic intracerebral bleeding [4][5][6].

**Safety:**

- **Symptomatic Intracranial Hemorrhage (sICH):** The risk of sICH is a critical safety concern. Studies show mixed results regarding the risk of sICH beyond the 4.5-hour window. Some meta-analyses report a higher risk of sICH with delayed IVT, [2][3] while others found no significant increase in sICH rates [1][7]. The overall mortality rates did not significantly differ between early and delayed IVT groups [1][2][5].
- **General Safety:** IVT beyond the 4.5-hour window did not significantly increase overall mortality or systemic bleeding, although it did raise the risk of any intracranial hemorrhage and type-II parenchymal hemorrhage [2]. Additionally, studies using non-contrast CT (NCCT) for patient selection in the extended window suggest that IVT can be safe without advanced imaging, with similar sICH rates compared to the standard window [8].

References

Reference 1  
 Thrombolysis for ischemic stroke at 4.5 to 24 hours: An updated meta-analysis of randomized controlled trials  
 Luo J.-X., Li Z.-Q., Meng Z.-Z., (...), Li Q.  
*Journal of Stroke and Cerebrovascular Diseases* 2025

Reference 2  
 Efficacy and Safety of Intravenous Thrombolysis Beyond 4.5 Hours in Ischemic Stroke: A Systematic Review and Meta-Analysis  
 Ahmad M., Ranasinghe C.A., Abu-Sa'da M.O., (...), Ahmed R.  
*Diagnostics* 2025

Reference 3  
 Efficacy and Safety of Intravenous Thrombolysis in the Extended Time Window for Acute Ischemic Stroke: A Systematic Review and Meta-Analysis  
 Palaiodimou L., Papageorgiou N.M., Safouris A., (...), Tsvigoulis G.  
*Journal of Clinical Medicine* 2025

[Show all 8 references](#)

參考  
文獻

核心  
文獻

基於引用影響力  
 X 作者知名度  
 X 期刊排名

Show Copilot steps ▾

### ☑ Performing natural language search:

- Is intravenous thrombolysis effective and safe beyond the 4.5-hour window in acute ischemic stroke?

### ☑ Performing keyword search:

- ("intravenous thrombolysis" OR "IV thrombolysis" OR "thrombolytic therapy") AND ("acute ischemic stroke" OR "ischemic stroke" OR "cerebral infarction") AND ("beyond" OR "after" OR "over" OR "exceeding") AND ("4.5 hours" OR "four point five hours" OR "time window" OR "treatment window") AND ("outcomes" OR "efficacy" OR "safety" OR "complications")

「自然語言」 + 「關鍵字檢索」並行搜尋  
生成可靠文獻整理。可自行擴充至  
專科資料庫深入檢索  
(PubMed注意: 需刪除 "引號")

## References

### Reference 1

Thrombolysis for ischemic stroke at 4.5 to 24 hours: An updated meta-analysis of randomized controlled trials

[Luo J.-X.](#), [Li Z.-Q.](#), [Meng Z.-Z.](#), (...),

[Li Q.](#)

*Journal of Stroke and Cerebrovascular*

**Effectiveness:**

- **Improved Outcomes:** Several studies indicate that the 4.5-hour window can be effective in improving outcomes. Randomized clinical trials (RCTs) found that IVT within the 4.5-hour window improved functional outcomes (modified Rankin Scale [mRS] scores of 0-2) at 90 days <sup>1 2 3</sup>. Another study reported that IVT with tenecteplase or alteplase enhanced 90-day excellent outcomes in patients treated within 4.5 to 24 hours <sup>1</sup>.

- **MRI and PCT Selection:** The use of MRI and perfusion computed tomography (PCT) to select patients with salvageable brain tissue has shown promise. Studies suggest that MRI-selected patients treated up to 6 hours after stroke onset can benefit from IVT without

**Safety:**

- **Symptomatic Intracranial Hemorrhage (sICH):** The risk of sICH is a critical safety concern. Studies show mixed results regarding the risk of sICH beyond the 4.5-hour window. Some meta-analyses report a higher risk of sICH with delayed IVT, <sup>2 3</sup> while others found no significant increase in sICH rates <sup>1 7</sup>. The overall mortality rates did not significantly differ between early and delayed IVT groups <sup>1 2 5</sup>.

- **General Safety:** IVT beyond the 4.5-hour window did not significantly increase overall mortality or systemic bleeding, although it did raise the risk of any intracranial hemorrhage and type-II parenchymal hemorrhage <sup>2</sup>. Additionally, studies using non-contrast CT (NCCT) for patient selection in the extended window suggest that IVT can be safe without

**Conclusion:**

- **Potential Benefits:** IVT beyond the 4.5-hour window can be effective in improving functional

## Summary

- 提綱挈領幫助建立文獻回顧骨架
- 掌握研究背景資訊

## References

- 對應正確參考文獻
- 拒絕幻覺 / 劣質文獻

**References**

Reference 1

Thrombolysis for ischemic stroke

at 4.5 to 24 hours: An updated

meta-analysis of randomized

controlled trials

Luo J.-X., Li Z.-Q., Meng Z.-Z.,

Li Q., Meng Z.-Z., Li Q., Meng

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Li Q., Meng Z.-Z., Li Q., Meng

Z.-Z., Li Q., Meng Z.-Z., Li Q.,

Meng Z.-Z., Li Q., Meng Z.-Z.,

Reference 1 • 0 citations

Thrombolysis for ischemic stroke at 4.5 to 24 hours: An updated meta-analysis of randomized controlled trials ↗

Luo, J.-X. ↗, Li, Z.-Q. ↗, Meng, Z.-Z. ↗, (...), Li, Q. ↗

*Journal of Stroke and Cerebrovascular Diseases* ↗ 2025[Show abstract](#) ✓

Reference 2 • 0 citations

Efficacy and Safety of Intravenous Thrombolysis Beyond 4.5 Hours in Ischemic Stroke: A Systematic Review and Meta-Analysis ↗

Ahmad, M. ↗, Ranasinghe, C.A. ↗, Abu-Sa'da, M.O. ↗, (...), Ahmed, R. ↗

*Diagnostics* ↗ 2025[Show abstract](#) ✓[Hide abstract](#) ^

Background: Intravenous thrombolysis (IVT) is the standard treatment for ischemic stroke within 4.5 symptom onset. However, a significant proportion

**Recommendations:**

- **Patient Selection:** Use advanced imaging to identify salvageable brain tissue for IVT beyond the 4.5-hour window.
- **Further Research:** More large-scale trials are needed to refine patient selection criteria to maximize benefit.

**Confidence Level:** Moderate to high, based on the effectiveness and safety of IVT beyond the 4.5-hour window.



## Expanded summary

提供更深入、更廣泛的觀點

📖 Concept Map

👤 Topic Explorer

### Go deeper

↳ What are the potential risks of IVT beyond the 4.5-hour window in acute ischemic stroke?

↳ How does the effectiveness of IVT change beyond the 4.5-hour window in acute ischemic stroke?

↳ What are the current guidelines for IVT treatment beyond the 4.5-hour window in acute ischemic stroke?

Ask a follow-up question

[Show all 7 references](#)

beyond the 4.5-hour window in acute ischemic stroke (AIS) can be addressed through the following points:

### Clinical Outcomes of IVT Beyond the 4.5-Hour Window:

- Studies have shown that IVT beyond 4.5 hours improves neurological outcomes without increasing overall mortality or systemic bleeding, although it raises the risk of symptomatic intracranial hemorrhage (sICH) [1](#) [2](#).

### Safety Considerations for IVT Beyond the 4.5-Hour Window:

- A pooled analysis of randomized controlled trials of IVT shows no statistically significant benefit beyond 4.5 hours, with the possible advantage perhaps offset by risk [4](#).
- However, a study found that IVT in patients who fulfill the NINDS study criteria may still be considered up to 6 hours after ischemic stroke, with no worse outcomes than patients treated within 3 hours [5](#).

### Neuroimaging Findings Associated with IVT Beyond the 4.5-Hour Window:

- Advanced imaging techniques and adjuncts to thrombolysis may improve the ability to select patients who may benefit from reperfusion therapy, allowing treatment decisions to be based on individual brain pathophysiology rather than arbitrary time windows [6](#).

### Current Guidelines and Recommendations Regarding IVT Beyond the 4.5-Hour Window:

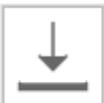
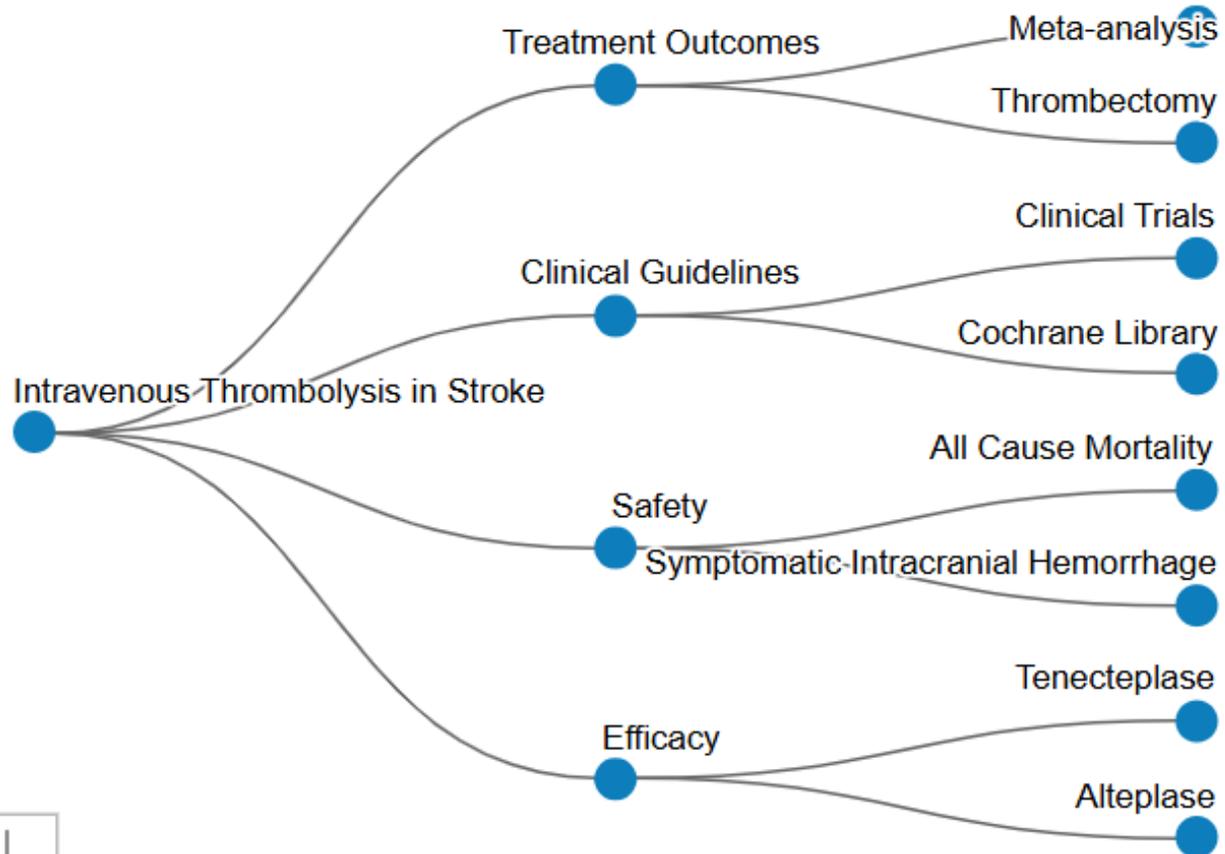
- Recent trials have shown the efficiency and safety of IVT in the treatment of AIS in selected patients even beyond the standard therapeutic time window, leading to the update of national guidelines on the treatment of acute ischemic stroke with IVT [7](#).

# Insights at a glance

**Concept Map**

Topic Experts

Emerging Themes

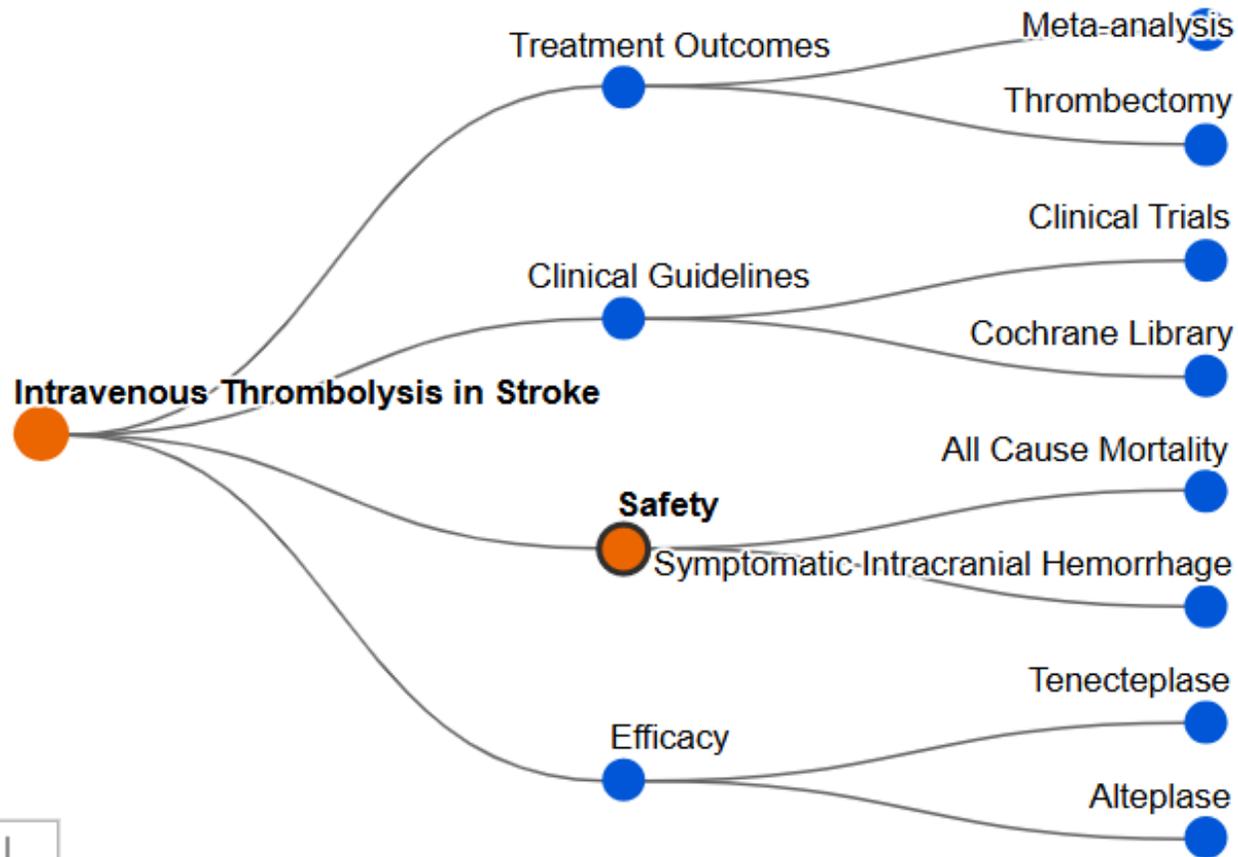


controlled randomised trial  
S.M., Davis, Stephen M.,  
G.A., Donnan, Geoffrey A.,  
M.W., Parsons, Mark W., (...),  
P.M., DESMOND, P. M.  
*Lancet Neurology* 7 | 2008

[Show more documents](#)

## Insights at a glance

 Concept Map
  Topic Experts
  Emerging Themes



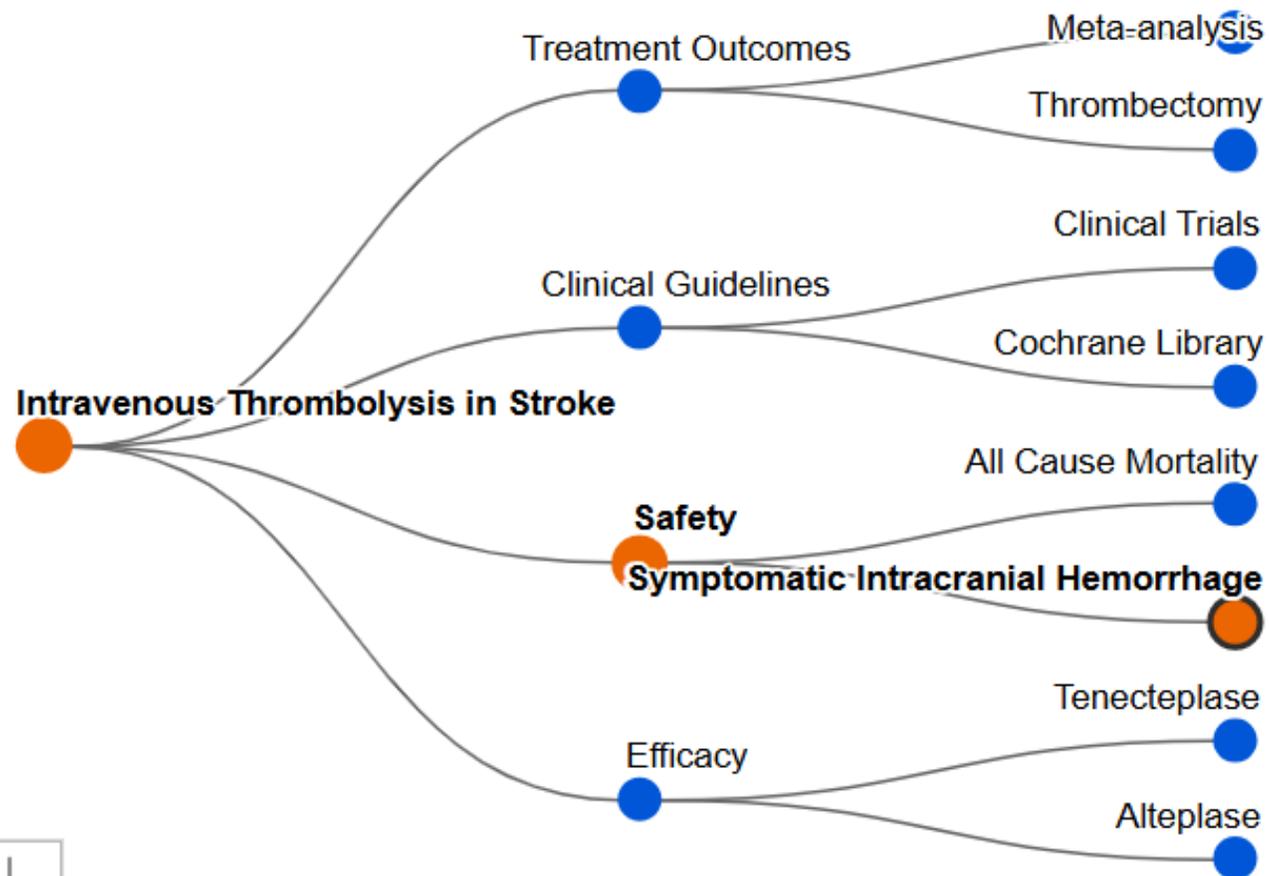
## Linked concept path summary

Intravenous Thrombolysis in Stroke → Safety

- Safety in Different Stroke Territories:** A study comparing safety and clinical outcomes of intravenous thrombolysis in patients with anterior and posterior circulation stroke found that patients with posterior circulation stroke had a lower risk of symptomatic intracranial hemorrhage and a higher likelihood of a favorable outcome compared to those with anterior circulation stroke [1](#).
- Time Window for Treatment:** Research suggests that intravenous thrombolysis within 4.5 to 6 hours after ischemic stroke onset may still be considered, with no significant difference in disability at 90 days or incidence of mortality between patients treated within 4.5 hours and those treated between 4.5 and 6 hours [2](#).
- Safety in Patients with Mild Ischemic Stroke:** In patients with baseline NIHSS scores of 3 to 5, intravenous thrombolysis was found to be safe and effective, improving 90-day functional outcomes without significantly increasing the risk of symptomatic intracranial hemorrhage. However, in patients with NIHSS scores of 0 to 2, thrombolysis did not improve functional outcomes and increased the risk of symptomatic intracranial hemorrhage [3](#).
- Off-Label Use and Safety:** Off-label use of intravenous thrombolysis in ischemic stroke was found to be safe for most criteria, especially for minor stroke, but risky in patients with high blood pressure [4](#).

## Insights at a glance

 Concept Map
  Topic Experts
  Emerging Themes



## Linked concept path summary

Intravenous Thrombolysis in Stroke → Safety → Symptomatic Intracranial Hemorrhage

- **Use of Direct Oral Anticoagulants (DOACs):** Guidelines recommend against intravenous thrombolysis in patients with recent intake of DOACs due to the risk of sICH, but there is uncertainty and lack of evidence in this area <sup>1</sup>.
- **Age and Safety:** Safety of intravenous thrombolysis within 3–4.5 hours in patients ≥80 years does not show a significant association with increased sICH, poor outcome, and mortality compared to the early time window <sup>4</sup>.



feedback

- **Patient Selection:** Use advanced imaging techniques (MRI, PCT) to identify patients with salvageable brain tissue for IVT beyond 4.5 hours

## Insights at a glance



Concept Map



Topic Experts



Emerging Themes

### Tsivgoulis, Georgios K. G.K.

23,370 citations   11 matching documents   80 h-index

Georgios K. Tsivgoulis is a recognized authority in the field of acute ischemic stroke treatment, particularly in the context of intravenous thrombolysis. Their recent work includes systematic reviews and meta-analyses that evaluate the efficacy and safety of thrombolysis in extended time windows, which directly addresses the question of treatment beyond the traditional 4.5-hour limit. Additionally, they have contributed to guidelines from prominent stroke organizations, indicating their involvement in shaping clinical practices. This combination of research and guideline development underscores their expertise in assessing the nuances of thrombolytic therapy in acute stroke management.

[Preview profile](#)

### Nguyen, Thanh Ngoc T.N.

8,377 citations   7 matching documents   47 h-index

Thanh Ngoc Nguyen has made significant contributions to the understanding of thrombolysis for ischemic stroke, especially regarding its application beyond the 4.5-hour window. Their publications include meta-analyses of randomized clinical trials that specifically investigate the effectiveness of thrombolysis in extended time frames. This focus on timely intervention in acute ischemic stroke positions them as an expert in evaluating the safety and efficacy of treatments that challenge conventional time limits. Furthermore, their involvement in clinical trial design and multicenter studies highlights their commitment to advancing knowledge in this critical area of stroke care.

[Preview profile](#)

controlled randomised trial

S.M., Davis, Stephen M.,

G.A., Donnan, Geoffrey A.,

M.W., Parsons, Mark W., (...),

P.M., DESMOND, P. M.

*Lancet Neurology* 7 | 2008

[Show more documents](#)

Recommendations:

- **Patient Selection:** Use advanced imaging techniques (MRI, PCT) to identify patients with salvageable brain tissue for IVT beyond 4.5 hours.
- **Further Research:** More large-scale RCTs are needed to confirm these findings and refine patient selection criteria to maximize benefits and minimize risks.

controlled randomised trial  
 S.M., Davis, Stephen M.,  
 G.A., Donnan, Geoffrey A.,  
 M.W., Parsons, Mark W., (...),  
 P.M., DESMOND, P. M.

### Insights at a glance

Concept Map

Topic Experts

**Emerging Themes**

掃描過去兩年文獻  
 偵測新興研究主題  
 瞄準研究缺口

#### Bridging Therapy in Acute Ischemic Stroke Consistent Theme

**Consistent Theme**

穩定存在的熱門研究

The ongoing debate an therapy, which combin mechanical thrombectomy in the treatment of acute ischemic stroke. This theme has shown consistent interest over time, highlighting its importance in improving patient outcomes.

Show references

Potential Hypotheses: ← 提出潛在假設

- Combining IVT with MT leads to better functional outcomes compared to MT alone in patients with large vessel occlusion
- The timing of IVT administration before MT significantly impacts the success rate of recanalization and patient recovery

#### Advanced Neuroimaging in Thrombolysis Decision-Making Rising Theme

**Rising Theme**

正在升溫的研究

The use of adva such as MRI and CT perfusion, in guiding thrombolysis decision-making is a rising theme. This approach aims to enhance patient selection and optimize treatment outcomes by providing detailed insights into brain tissue viability and perfusion status.

Show references

Potential Hypotheses:

- Advanced neuroimaging can improve the accuracy of thrombolysis eligibility, leading to better patient outcomes
- Combining perfusion imaging with traditional imaging techniques can reduce the incidence of futile recanalization attempts

#### Sex Differences in Thrombolysis Outcomes Novel Theme

**Novel Theme**

剛萌芽的新領域

Recent studies have highlight administration and outcomes This novel theme investigates how sex-specific factors influence treatment efficacy and safety, potentially leading to more personalized approaches in stroke management.

Show references

Potential Hypotheses:

- Sex-specific biological differences influence the efficacy and safety of intravenous thrombolysis in stroke patients
- Tailoring thrombolysis protocols based on sex can improve outcomes and reduce adverse effects in stroke treatment

# 練習

- ① 連線Scopus > Scopus AI (建議登入)
- ② 輸入您的研究題目
- ③ 在查詢結果的上方，您會看到Hide Copilot steps，  
點開後找到Performing keyword search
- ④ 點開Insights at glance:  
Concept Map、Topic Experts、Emerging Themes

## 第一版表格

### Key Findings Table

Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
<b>Effectiveness</b>	IVT beyond 4.5h improves functional outcomes in selected patients <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a>	Increased sICH risk, no rise in mortality <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	Advanced imaging essential <a href="#">4</a> <a href="#">5</a> <a href="#">9</a> <a href="#">10</a>	CT perfusion, MRI DWI/FLAIR
<b>Safety</b>	Comparable mortality to standard window; higher sICH and parenchymal hemorrhage <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	sICH risk modulated by comorbidities, statin use, age <a href="#">2</a> <a href="#">11</a> <a href="#">12</a>	Imaging and clinical scores (NIHSS, ASPECTS) <a href="#">13</a> <a href="#">14</a> <a href="#">15</a>	MRI safer than CT in some studies <a href="#">16</a>
<b>Subgroup Outcomes</b>	LVO, anterior circulation: improved outcomes with tenecteplase <a href="#">17</a> <a href="#">18</a> <a href="#">19</a>	Elderly: no increased mortality, but worse outcomes <a href="#">2</a> <a href="#">20</a>	Diabetes, AF: higher risk, but still benefit <a href="#">21</a> <a href="#">22</a> <a href="#">23</a>	DWI/FLAIR mismatch for unknown onset <a href="#">5</a>
<b>Research Gaps</b>	Need for large RCTs, standardization, subgroup data <a href="#">2</a> <a href="#">6</a> <a href="#">24</a> <a href="#">25</a>	Implementation barriers in low-resource settings <a href="#">26</a> <a href="#">27</a>	Optimal imaging thresholds unclear <a href="#">6</a> <a href="#">9</a> <a href="#">25</a> <a href="#">28</a>	Automated imaging promising [creative_insights]

## 第二版表格

### Key Findings Table

Aspect	Standard IVT ( $\leq 4.5h$ )	IVT Beyond 4.5h (Selected Patients)	Comparative Safety/Efficacy
Functional Outcome (mRS 0–2 at 90 days)	45–55%	35–50%	Comparable if advanced imaging used
Symptomatic Intracranial Hemorrhage	2–6%	4–10%	~2x higher risk, but not mortality
Mortality (90 days)	10–15%	10–16%	No significant difference
Imaging Selection	Not required	Essential (CTP/MRI mismatch)	Improves safety and efficacy
Tenecteplase vs Alteplase	Non-inferior ( $\leq 4.5h$ )	Promising, ongoing trials	Similar safety, logistical benefit

我想要請Scopus生成像這樣的表格，請擬中文、英文提示詞  
(500字元內)

Key Findings Table				
Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
<b>Effectiveness</b>	IVT beyond 4.5h improves functional outcomes in selected patients <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a>	Increased sICH risk, no rise in mortality <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	Advanced imaging essential <a href="#">4</a> <a href="#">5</a> <a href="#">9</a> <a href="#">10</a>	CT perfusion, MRI DWI/FLAIR
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Ask a follow-up question: 252字元 (將ChatGPT 生成提示詞, 餵給Scopus)

請幫我生成一個 Key Findings Table.

表格欄位請包含： Domain Summary of Evidence, Safety Profile, Patient Selection, Imaging Modalities

Domain 欄位表頭必須只包含以下四個固定標題:

Effectiveness, Safety, Subgroup Outcomes, Research Gaps

每一格請用簡短句子歸納主要研究結論，並在內容中加上對應的參考文獻編號。

Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
Effectiveness	IV thrombolysis beyond 4.5 hours improves functional outcomes in selected patients, particularly those with salvageable brain tissue or penumbra <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> .	Comparable safety outcomes (e.g. symptomatic intracranial hemorrhage) between early and late thrombolysis groups, though late IVT may slightly increase risks <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> .	Patients with perfusion mismatch, penumbral tissue, or favorable imaging profiles benefit most from late thrombolysis <a href="#">1</a> <a href="#">4</a> <a href="#">5</a> <a href="#">6</a> .	Advanced imaging (e.g. MRI, CTP) is effective for identifying candidates for late thrombolysis, but non-contrast CT (NCCT) may also suffice in some cases <a href="#">1</a> <a href="#">4</a> <a href="#">7</a> <a href="#">8</a> .
Safety	Late IV thrombolysis does not significantly increase mortality but may raise the	sICH rates are higher in late thrombolysis but remain within acceptable limits	Age and baseline NIHSS scores are predictive of poor outcomes in delayed	MRI-based DWI/FLAIR mismatch and CTP-based perfusion mismatch are

## 請提供「每個研究」的研究特徵與主要結果表

研究編號	研究特徵	主要結果
1	系統性回顧與統合分析，21項RCT，4473名患者，評估急性缺血性中風中血管內治療（EVT）與靜脈溶栓（IVT）的比較。	EVT在90天內顯著改善功能結局（RR 1.35）並降低死亡率（RR 0.81），但症狀性出血轉化率相似（RR 1.12）。
2	系統性回顧與統合分析，26項RCT，10431名患者，評估靜脈溶栓的效益與風險。	靜脈溶栓改善功能結局（OR 1.14），但增加症狀性顱內出血（OR 4.28）和早期死亡率（OR 1.51）。
3	系統性回顧與統合分析，10項研究，4333名患者，評估輕微中風（NIHSS ≤ 5）患者中溶栓的安全性與有效性。	溶栓增加顱內出血風險（3.8% vs. 0.6%），但在90天內功能良好結局的的比例略高（68.3% vs. 63.0%，p=0.003）。
4	系統性回顧與統合分析，20項RCT，2287名患者，評估動靜脈聯合溶栓的療效與安全性。	動靜脈聯合溶栓改善NIHSS和mRS分數，增加再通率（OR 2.91），但症狀性顱內出血風險無顯著差異，且死亡率降低（OR 0.53）。

Provide studies that fully align with this question, **SRs/RCTs**, **high-quality evidence**, **larger sample sizes**, and **trusted sources** (e.g., **Cochrane Reviews**, but studies from other reputable journals are also welcome).

Table: for "each" study, clearly provide the **study design**, **publication year**, **sample size**, **intervention method**, **outcomes** (including statistical values).

Study Design	Publication		Intervention	Outcomes
	Year	Sample Size	Method	
Systematic Review and Meta-Analysis of RCTs	2015	4473 patients	Endovascular treatment (EVT) vs. Intravenous thrombolysis (IVT)	- Improved functional outcome at 90 days (RR 1.35, 95% CI 1.18 to 1.55, $I^2 = 61\%$ ) - Reduced mortality (RR 0.81, 95% CI 0.68 to 0.95, $I^2 = 0\%$ ) - Similar symptomatic hemorrhagic transformation rate (RR 1.12, 95% CI 0.88 to 1.44, $I^2 = 0\%$ ) <a href="#">1</a>
Systematic Review and Meta-Analysis of	2022	36,123 patients	IVT + Mechanical Thrombectomy (MT) vs. MT alone	- Successful recanalization (RR 1.06, 95% CI 1.03 to 1.09) - Reduced mortality (RR 0.75, 95% CI 0.68 to 0.82) - Favorable

# 練習

## ⑤ 利用Ask a follow-up question提出追問

例如: 生成「指定樣式的表格」

Provide studies that fully align with this question, **SRs/RCTs**, **high-quality** evidence, **larger sample sizes**, and **trusted sources (e.g., Cochrane Reviews)**, but studies from other reputable journals are also welcome).

Table: for "**each**" study, clearly provide the **study design**, **publication year**, **sample size**, **intervention method**, **outcomes** (including **statistical values**).

請幫我生成一個 Key Findings Table.

表格欄位請包含：*Domain Summary of Evidence, Safety Profile, Patient Selection, Imaging Modalities*

Domain 欄位表頭必須只包含以下四個固定標題：*Effectiveness, Safety, Subgroup Outcomes, Research Gaps*

每一格請用簡短句子歸納主要研究結論，並在內容中加上對應的參考文獻編號。



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**Is intravenous thrombolysis beyond the 4.5-hour window effective and safe in acute ischemic stroke?**

Deep research



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Is intravenous thrombolysis beyond the 4.5-hour window effective and safe in acute ischemic stroke?

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Thinking for 51sec ○

I've found 19 sources related to the safety profile of IVT beyond 4.5 hours across various age groups and health conditions.

Thinking for 1min 9sec ○

I'm finalizing the research plan and working on 8 selected questions.

Thinking for 1min 41sec ○

I'm planning the report structure.

Generated by Scopus AI, Tue Sep 09 2025

## Intravenous thrombolysis in acute ischemic stroke

### Effectiveness and Safety of Intravenous Thrombolysis Beyond the 4.5-Hour Window in Acute Ischemic Stroke

#### Quick Reference

#### Key Findings Table

Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
<b>Effectiveness</b>	IVT beyond 4.5h improves functional outcomes in selected patients <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a>	Increased sICH risk, no rise in mortality <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	Advanced imaging essential <a href="#">4</a> <a href="#">5</a> <a href="#">9</a> <a href="#">10</a>	CT perfusion, MRI DWI/FLAIR
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#### Direct Answer

Intravenous thrombolysis beyond the 4.5-hour window can be effective in improving functional outcomes in carefully selected acute ischemic stroke patients; however, this benefit is coupled with an increased risk of symptomatic intracranial hemorrhage. Advanced neuroimaging techniques are essential for identifying patients with salvageable brain tissue, which helps mitigate these risks and optimize outcomes.

#### Study Scope

- **Time Period:** Studies and meta-analyses from the last decade, including ongoing RCTs.
- **Disciplines:** Neurology, radiology, emergency medicine, clinical epidemiology.
- **Methods:** Meta-analyses, randomized controlled trials, observational studies, imaging-based selection, clinical scoring systems.

#### Assumptions & Limitations

- Most evidence is derived from imaging-selected patient cohorts, limiting generalizability.
- Data on specific subgroups (e.g., DOAC users, severe renal dysfunction) remain sparse.
- Real-world implementation is challenged by imaging availability and workflow constraints.
- Long-term outcomes beyond 1 year are less well characterized.

#### Suggested Further Research

- Large-scale, multicenter RCTs to validate late-window IVT protocols.
- Standardization of imaging thresholds and selection criteria.
- Comparative studies of thrombolytic agents (tenecteplase vs alteplase).
- Implementation science addressing workflow and resource barriers.

## 1. Introduction

### Background and Rationale

Acute ischemic stroke (AIS) is a leading cause of disability and death worldwide, with intravenous thrombolysis (IVT) using recombinant tissue plasminogen activator (rt-PA) established as the standard of care within a 4.5-hour window from symptom onset. This time restriction, however, excludes a substantial proportion of patients who present late or with unknown onset, prompting research into extending the therapeutic window. The rationale for late-window IVT is supported by advances in neuroimaging that allow identification of salvageable brain tissue (penumbra), potentially expanding eligibility and improving outcomes for more patients [1](#) [24](#).

## 2. Theoretical Frameworks

### Pathophysiology of Ischemic Stroke and Thrombolysis

- **Ischemic Core vs Penumbra:** The central concept is the distinction between irreversibly damaged tissue (core) and potentially salvageable tissue (penumbra). Thrombolysis aims to restore perfusion before the penumbra progresses to infarction.
- **Time-Dependent Tissue Viability:** Traditional models emphasize a rapid decline in salvageable tissue over time, but advanced imaging reveals substantial inter-individual variability, justifying a tissue-based rather than strictly time-based approach [4](#) [5](#).
- **Imaging-Guided Selection:** CT perfusion and MRI DWI/FLAIR mismatch enable visualization of the penumbra, guiding safe extension of the IVT window [4](#) [5](#) [29](#).

**Synthesis:** The shift from time-based to tissue-based selection underpins the theoretical justification for late-window IVT, supported by imaging modalities that identify patients most likely to benefit.

# 練習

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文獻檢閱|提出研究假設：芳香：

文獻檢閱|芳香療法運用在ICU病：

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探索主題、找出相關的子主題並將趨勢視覺化。

- 文字雲(詞雲)
- 主題地圖
- 國家/地區地圖
- 歷年發表趨勢

## 文獻檢閱

整合文獻、找出研究缺口與熱門研究主題，並提出研究假設。

- 逐步問答確認需求：
- 細化題目方向
- 年代
- 分析篇數  
(預設25篇、最多50篇)

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✦ 提出研究問題

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文獻檢閱|提出研究假設：芳香：

文獻檢閱|芳香療法運用在ICU病：

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文獻檢閱[芳香療法運用在ICU病]

主題探索[芳香療法運用在ICU病]

主題探索[芳香療法運用在ICU病]



## 開始文獻檢閱

告訴研究助理您文獻檢閱的主題或工作



建立完整的文獻評審

識別研究缺口

尋找熱點

擬定假說

您希望建立有關「**芳香療法對ICU病人睡眠品質的影響**」的文獻檢閱。這是一個很有意義的研究主題。為了更好地制定搜索策略，讓我們先細化您的查詢。我會問一些問題來確認我們的方向。

1. 您希望我們關注哪些特定的芳香療法，**例如特定的精油或療法方式**？
2. 您是否有興趣探索**特定的ICU病人群體**，如成人、兒童或特定疾病患者？

⇒ **建立完整的文獻評審**

↔ **識別研究缺口**

您想要查找有關「**芳香療法在ICU病人睡眠品質中的應用**」的研究缺口。

以下是一些可能的子主題，您可以考慮：

1. 芳香療法的特定種類（例如，薰衣草、洋甘菊等）對ICU病人睡眠品質的影響。
2. 不同ICU病人的群體(如年齡、性別或病情)的反應差異。
3. 芳香療法與其他改善睡眠的方法（例如藥物）的比較。

以下是一些建議的子主題，您可以考慮：

1. 芳香療法的具體應用方式，例: 精油種類、施用方法。
2. ICU病人的睡眠問題和挑戰。
3. 芳香療法對睡眠品質的影響機制。
4. 在ICU環境中進行芳香療法研究的挑戰和方法。

請告訴我您是否想要添加或更改任何子主題，或者如果您有其他具體的研究重點。我們也會在進行搜索之前確認是否限制在最近十年的研究。

🔍 **尋找熱點**

⇒ **擬定假說**

以下是基於38篇文章的文獻分析，我們提出的5個潛在研究假設：

**假設1：擴香器使用的芳香療法可顯著提高ICU病人的睡眠品質**

研究表明，擴香器可以有效地將芳香精油中的活性成分散佈在空氣中，從而增強患者的睡眠品質[[Kim et al., 2016](#); [Fang et al., 2025](#)]。

**假設2：使用按摩油的芳香療法能顯著改善ICU病人的睡眠和減少焦慮....**

# 練習

- ① 連線Web of Science > Research Assistant (建議登入)
- ② (右上角) 設定語言
- ③ 使用文獻檢閱 > 並體驗下列四個切入面向的差異

 **文獻檢閱**

整合文獻、找出研究缺口與熱門研究主題，並提出研究假設。

 **Create a Literature Review**

Synthesize the literature, uncover research gaps and hotspots, and formulate hypotheses.

**開始文獻檢閱**

✦ | 告訴研究助理您文獻檢閱的主題或工作

⇒ 建立完整的文獻評審    ⇄ 識別研究缺口    ↶ 尋找熱點    ⇨ 擬定假說

**Start your literature review**

✦ | Tell the Research Assistant about the topic or task for your literature review

⇒ Create detailed literature review    ⇄ Identify research gaps    ↶ Find hotspots    ⇨ Formulate hypothesis



您的研究兴趣是关于芳香疗法在ICU病人睡眠问题中的应用。为了更好地帮助您，我们可以将主题细分并制定一个更具体的研究策略。以下是一些可能的子主题：

1. 芳香疗法的基本原理和机制
2. ICU病人常见的睡眠问题
3. 芳香疗法在改善睡眠质量方面的效果
4. 临床研究：芳香疗法在ICU中的应用案例
5. 潜在的副作用或注意事项

请问您是否对某个特定方面感兴趣，或者是否希望我帮助您进一步细化这些子主题？



芳香療法運用在ICU病人睡眠問題



好的，您希望了解芳香疗法在改善睡眠质量方面的效果。为了接下来进行有效的文献搜索，我们可以考虑以下关键词和主题：

1. **芳香疗法**：Aromatherapy, Essential Oils
2. **睡眠质量**：Sleep Quality, Sleep Disorders, Insomnia
3. **改善效果**：Efficacy, Improvement, Treatment Outcomes

接下来，我们将制定一个具体的搜索策略，结合这些关键词和主题。以下是我的建议：

“Aromatherapy AND Sleep Quality Improvement”

“Essential Oils AND Insomnia Treatment”

“Aromatherapy AND Sleep Disorders AND Outcomes”

请您确认这些搜索策略是否合适，或者是否有其他的关键词或主题需要加



芳香療法在改善睡眠品質的效果





好的，您希望將研究範圍聚焦在芳香療法對ICU病人睡眠品質的改善效果。  
接下來是更新的搜尋策略：

1. **芳香療法**：Aromatherapy, Essential Oils
2. **ICU病人**：Intensive Care Unit, ICU Patients
3. **睡眠品質**：Sleep Quality, Sleep Disorders, Insomnia
4. **改善效果**：Efficacy, Improvement, Treatment Outcomes

可能的搜尋策略如下：

"Aromatherapy AND ICU Patients AND Sleep Quality"

"Essential Oils AND Intensive Care Unit AND Sleep Disorders"

"Aromatherapy AND ICU AND Insomnia AND Treatment Outcomes"

接下來，我建議將搜尋結果限制在最近10年內，以確保使用最新的研究成果。請問這樣的搜尋策略和時間限制您覺得合適嗎？

繁體中文



了解了，讓我們來調整搜尋策略，將同義詞用 OR 連接。以下是更新後的搜尋策略：

"(Aromatherapy OR Essential Oils) AND (ICU Patients OR Intensive Care Unit) AND (Sleep Quality OR Sleep Disorders OR Insomnia) AND (Efficacy OR Improvement OR Treatment Outcomes)"

這樣的搜尋策略應該可以涵蓋所有相關的研究方向。接下來，我會建議將搜尋結果限制在最近10年內，以確保獲得最新的研究成果。您同意這樣的搜尋策略和時間限制嗎？

同義詞要先OR



我們在Web of Science中找到了47篇有關於芳香療法在ICU病人睡眠品質改善的文章。根據預設，我們將使用25篇文章來進行文獻回顧。請問這個數量可以嗎，還是您希望我們使用更多的文章？最多可以選擇50篇。

好的，我們將使用所有47篇文章進行文獻回顧。接下來，我會根據這些文章撰寫一份文獻回顧，內容將包括引言、文章中常見的主題和關鍵發現、研究缺口、結論、潛在假設，以及引用的文件清單。請稍等片刻，我將為您準備這些內容。

### 文獻回顧：芳香療法在ICU病人睡眠品質改善中的應用

#### 引言

在重症監護病房（ICU）中，患者常常面臨嚴重的睡眠障礙，這不僅影響他們的恢復速度，也對整體健康造成負面影響。芳香療法作為一種非藥物干預措施，因其潛在的放鬆效果和改善睡眠品質的能力而受到關注。本次文獻回顧旨在探討芳香療法在ICU病人中改善睡眠品質的效果。

#### 常見主題和關鍵發現

- 芳香療法的有效性：**多篇研究顯示，芳香療法能夠顯著提高ICU病人的睡眠品質。例如，Motlagh等的研究指出，使用薄荷和甜杏仁油的芳香按摩能有效提升創傷性腦損傷患者的睡眠品質[Motlagh et al., 2025]。
- 芳香療法的組合應用：**有研究強調將芳香療法與其他非藥物介入措施結合使用，如音樂療法和耳塞，能進一步提升睡眠效果[Wang et al., 2025]。
- 不同精油的效果：**不同的精油對睡眠品質的影響各異。研究發現，薰衣草、羅馬洋甘菊等精油在促進睡眠方面具有顯著效果[Sivamaruthi et al., 2025]。
- 芳香療法的安全性和成本效益：**芳香療法被認為是安全且具成本效益的干預措施，尤其是在需要長期住院的患者中[Tan et al., 2023]。

#### 研究缺口

- 長期效果的缺乏：**雖然短期內芳香療法對睡眠的改善效果明顯，但對於其長期效果的研究仍不足。
- 不同患者群體的研究：**目前的研究主要集中於一般ICU患者，對於特定病症患者（如心臟病患者）的研究較少。
- 標準化問題：**不同研究中使用的精油種類、濃度和應用方式不一，導致結果的可比性受到限制。
- 綜合療法的評估：**除了芳香療法本身，與其他療法的聯合效果尚需更深入的研究。

#### 結論

總體而言，芳香療法作為改善ICU病人睡眠品質的有效措施，顯示出良好的潛力。然而，為了進一步驗證其效果和應用範圍，仍需更多高質量的研究。

#### 潛在假設

- 芳香療法能顯著改善ICU患者的睡眠品質，尤其是在結合其他非藥物療法時。
- 使用特定精油（如薰衣草和羅馬洋甘菊）可以比其他精油更有效地提高睡眠品質。
- 長期應用芳香療法可能對ICU患者的康復過程產生積極影響。
- 芳香療法對於不同病症的ICU患者（如心臟病）可能需要調整以達到最佳效果。
- 將芳香療法納入標準ICU護理計畫中可以提高患者整體的健康結果。

#### 引用文件



以下是根據找到的47篇文章中精選的5篇系統綜述（SR）或隨機對照試驗（RCT）研究的特徵表：

文章標題	研究類型	研究對象	主要干預措施	主要結果	引用
The effects of aromatherapy massage with mint and sweet almond oils on the sleep quality of patients with traumatic brain injury admitted to intensive care unit: a randomized clinical trial	RCT	60位創傷性腦損傷ICU患者	芳香療法按摩（薄荷和甜杏仁油）	顯著提高睡眠品質	[Motlagh et al., 2025]
Nurse-led evidence-based quality improvement programme to improve intensive care unit patient sleep quality	RCT	ICU患者	護理主導的睡眠改善計畫（包括芳香療法）	提高睡眠品質，改善護理實踐	[Wang et al., 2025]
Effectiveness of aromatherapy on anxiety and sleep quality among adult patients admitted into intensive care units: A systematic review	SR	2176位ICU患者	單一干預的芳香療法	芳香療法可能有效，但證據等級低	[Tan et al., 2023]
The Role of Essential Oils on Sleep Quality and Other Sleep-related Issues: Evidence from Clinical Trials	SR	各類患者	精油治療（薰衣草、佛手柑等）	提高睡眠品質，尤其是薰衣草精油	[Sivamaruthi et al., 2025]
Effect of inhaled aromatherapy on sleep quality in critically ill patients: A systematic review and network meta-analysis	SR	690名重症患者	吸入式芳香療法	薰衣草、洋甘菊和橙花精油最有效	[Fang et al., 2025]

這些文章提供了關於芳香療法在改善ICU病人睡眠品質的深入研究，涵蓋了不同的精油、應用方式和結果測量方法。



Download as PDF



Export references as CSV

# 練習

③ 在文獻檢閱模組，繼續輸入提示詞

例如：生成「指定樣式的表格」

Provide studies that fully align with this question, **SRs/RCTs**, **high-quality** evidence, **larger sample sizes**, and **trusted sources** (e.g., **Cochrane Reviews**, but studies from other reputable journals are also welcome).

Table: for "**each**" study, clearly provide the **study design**, **publication year**, **sample size**, **intervention method**, **outcomes** (including **statistical values**).

請幫我生成一個 Key Findings Table.

表格欄位請包含：*Domain Summary of Evidence, Safety Profile, Patient Selection, Imaging Modalities*

Domain 欄位表頭必須只包含以下四個固定標題：*Effectiveness, Safety, Subgroup Outcomes, Research Gaps*

每一格請用簡短句子歸納主要研究結論，並在內容中加上對應的參考文獻。

## Scopus AI

Study Design	Publication Year	Sample Size	Intervention Method	Outcomes
Systematic Review (SR)	Not specified	2176	Aromatherapy as a single intervention in ICU patients	Reduced anxiety (low GRADE certainty) and improved sleep quality (very low GRADE certainty) <a href="#">1</a> .
RCT	2013	56	Lavender, chamomile, and neroli inhalation (6:2:0.5 ratio) before and after PCI	Reduced anxiety ( $t = 5.99, p < 0.001$ ), improved sleep quality ( $t = -3.65, p = 0.001$ ) <a href="#">2</a> .
Systematic Review (SR)	Not specified	11 RCTs	Aromatherapy for cancer patients	Improved sleep quality (SMD = -0.92, 95% CI: -1.39 to -0.46, $p < 0.001$ ) but no significant effect on fatigue <a href="#">3</a> .
Meta-Analysis	2011–2019	30 studies	Various aromatherapy methods (e.g. massage, inhalation)	Significant improvement in sleep quality (effect size = 0.74. Massage was more effective than inhalation) <a href="#">4</a> .

## WoS: Research Assistant

各研究特徵比較表 (實證醫學證據等級較高的文獻)

研究設計	病人族群 (人數)	介入	結果	統計數值	參考連結
隨機對照試驗	燒傷患者 (60人)	薰衣草精油吸入	改善睡眠品質，減少疼痛	$p < 0.05$	[Akkaya et al., 2024]
系統性回顧與Meta分析	心臟病患者 (740人)	單一精油吸入	中度改善睡眠品質	SMD = -0.74, $p = 0.003$	[Ye et al., 2025]
網絡Meta分析	重症病人 (690人)	薰衣草、洋甘菊、橙花精油吸入	效果最佳	最佳組合效果	[Fang et al., 2025]
系統性回顧	ICU病人 (多項研究)	薰衣草精油吸入	快速改善睡眠品質	多數研究報告顯著效果	[Tan et al., 2023]
傘式回顧	各類患者 (多項研究)	多種精油	效果不一	整體效果參差	[Shi et al., 2025]
系統性回顧與Meta分析	ICU護理人員 (112人)	薰衣草精油吸入	減輕壓力和疲勞	SMD=-0.74, $p < 0.0001$	[Xu et al., 2025]
綜合評估	重症病人 (多項研究)	多種精油吸入	效果更佳	組合效果更好	[Peng et al., 2025]
隨機對照試驗	冠心病患者 (60人)	薰衣草精油吸入	改善睡眠和焦慮	$p < 0.05$	[Karadag et al., 2017]

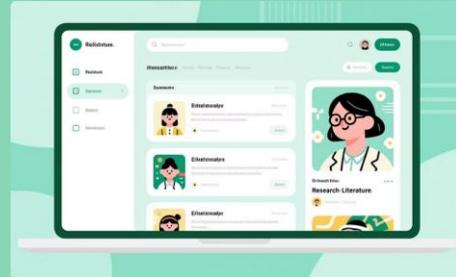
	Scopus AI	WoS Research Assistant
主要資料來源	Scopus 資料庫 (! 主要為 2003 年後文獻)	WoS 核心合輯 (1900 年至今)
操作模式	<b>自由探索制</b> Basic、Deep Research、Temporary	<b>任務引導制</b> (1)主題探索、(2)文獻檢閱、(3)尋找期刊
可輸出...	<ul style="list-style-type: none"> <li>基本：摘要、參考文獻(含引用量高的<b>基礎論文</b>)、主題專家、表格</li> <li>專屬：<b>概念地圖(樹枝狀)</b>、新興主題、深度研究報告</li> </ul>	<ul style="list-style-type: none"> <li>基本：摘要、參考文獻、頂尖作者、表格</li> <li>專屬：<b>主題地圖(網狀)</b>、趨勢圖、<b>共被引圖</b>、世界地圖、文字雲</li> </ul>
亮點	<ul style="list-style-type: none"> <li>介面簡潔友善</li> <li><b>新興議題</b> 捕捉能力強</li> <li><b>Deep Research</b>：一鍵生成從「研究範圍」到「研究缺口」的完整報告</li> </ul>	<ul style="list-style-type: none"> <li>依任務區分功能、共被引分析</li> <li>與<b>JCR期刊</b>排名完美結合</li> <li><b>Enriched Cited References</b>：還能知道被引用在哪裡、是支持/反駁</li> </ul>
推薦使用情境	<ul style="list-style-type: none"> <li><b>初步探索</b>：探索全新領域，需「聯想」相關概念時</li> <li><b>快速摘要</b>：想在 5 分鐘內了解某個主題近 10 年的研究概況</li> <li><b>尋找靈感</b>：利用新興主題 或 概念地圖視覺化開展</li> </ul>	<ul style="list-style-type: none"> <li><b>文獻回顧</b>：需要尋找且不能遺漏早期(2003 年前)重要文獻時</li> <li><b>找投稿期刊</b>：已有標題與摘要，想找合適目標期刊</li> <li><b>精確引用分析</b>：了解哪些作者或文章被共同引用</li> </ul>

## 通用型



ChatGPT  
Gemini  
Claude

## 學術型AI



OpenEvidence  
[醫學適用]



Scopus AI  
WoS RA

## 知識庫型AI



Google  
Notebook LM

資訊  
來源:

網路無限寬廣(免費全文)

高影響力期刊(含全文)  
臨床指引

學術引文資料庫(摘要)

自建可信任的來源

# 可信度取決於資料來源，而非AI本身

可信  
控制:

較低



較高

負責任的AI原則/避免偏見

# ChatGPT—文獻回顧

- 檢索詞蒐集



**題目:** 妊娠糖尿病患者以身體活動介入，是否能改善血糖控制效果？

**任務與輸出形式:** 請列表提供上述題目之PICO的中/英同義詞、MeSH、Emtree

- 每個MeSH、Emtree皆須提供超連結網址到該控制詞彙詞條查詢畫面，以便我驗證  
例如Diabetes, Gestational，須在詞彙上有超連結底線，內嵌網址到該詞條
- MeSH 網址語法範例 <https://www.ncbi.nlm.nih.gov/mesh/?term=Diabetes, Gestational>
- Emtee 網址語法範例: <https://www.embase.com/emtree?term=gestational diabetes>

## 1 PICO 同義詞 + MeSH + Emtree (含中文同義字)

PICO	概念	中文同義字	同義詞 (Text words)	MeSH (點擊詞彙)	Emtree (點擊詞彙)
P	妊娠糖尿病	妊娠糖尿病 妊娠期糖尿病 孕期糖尿病 懷孕糖尿病	gestational diabetes gestational diabetes mellitus GDM pregnancy diabetes diabetes in pregnancy	<a href="#">Diabetes, Gestational ↗</a>	<a href="#">gestational diabetes mellitus ↗</a>
I	身體活動 / 運動	身體活動 運動 體能活動 運動訓練 運動治療 生活型態介入 步行 孕期運動	physical activity exercise aerobic exercise resistance training physical training exercise therapy lifestyle intervention walking prenatal exercise	<a href="#">Exercise ↗</a> <a href="#">Motor Activity ↗</a>	<a href="#">exercise ↗</a> <a href="#">physical activity ↗</a>
O	血糖控制	血糖控制 血糖調控	glycemic control blood glucose control	<a href="#">Blood Glucose ↗</a> <a href="#">Hemoglobin A,</a>	<a href="#">blood glucose ↗</a> <a href="#">glycated hemoglobin ↗</a>




**1 PICO 同義詞 + MeSH + Emtree (進階完整版)**

PICO	概念	中文同義字	同義詞 (進階檢索版, 含截詞)
P	妊娠糖尿病	妊娠糖尿病 妊娠期糖尿病 孕期糖尿病 懷孕糖尿病	gestational diabet* gestational diabetes mellitus GDM pregnan* diabet* diabet* in pregnan* maternal diabet* hyperglyc* in pregnan*
I	身體活動 / 運動	身體活動 運動 體能活動 運動訓練 運動治療 生活型態介入 孕期運動 孕婦運動	physical activit* motor activit* exercis* physical fit* physical train* exercise therap* lifestyle intervention*  (孕婦適用運動) walk* brisk walk* swimm* aqua exercis* water aerobics prenatal yoga yoga pilates prenatal pilates stretch*

## 迭代追問:

請補充同義詞，注意下列事項

1. 包含單複數、英美式拼法、縮寫、同義異形
2. 身體活動: 請幫我列出適合孕婦的運動名稱
3. 如果詞彙有不同字尾變化，請做適當字尾切截  
例如physical activity  
表達為physical activit\*

# Cochrane SR (Gold Standard)

The screenshot displays the Cochrane Library search interface. At the top left is the Cochrane Library logo with the tagline "Trusted evidence. Informed decisions. Better health." The top right features language selection (English) and a "Sign In" button. A search bar contains the term "acupuncture" with a search icon. Below the search bar are buttons for "Browse" and "Advanced search". A navigation menu includes "Cochrane Reviews", "Trials", and "Clinical Answers". A dropdown menu is open, showing options: "Title Abstract Keyword", "Record Title" (highlighted with a yellow arrow), "Abstract", "Author", and "Keyword". Below the navigation is a banner image of a woman smiling. The main content area shows search results for "acupuncture" filtered by "Record Title". A yellow arrow points to the "Cochrane Reviews" filter button. The results section includes a filter sidebar on the left, a summary of 55 results, and a list of two results:

**Filter your results**

**Date** ⓘ

Publication date

The last 3 months ..... 0

The last 6 months ..... 0

The last 9 months ..... 0

The last year ..... 0

The last 2 years ..... 1

Custom Range:

dd/mm/yyyy to dd/mm/yyyy

Apply Clear

**55 Cochrane Reviews** | Cochrane Protocols 25 | Trials 11746 | Editorials 0 | Special Collections 0 | Clinical Answers 8 | More

**55 Cochrane Reviews matching acupuncture in Record Title**

Cochrane Database of Systematic Reviews  
Issue 7 of 12, July 2022

Select all (55) | Export selected citation(s) | Show all previews

Order by Relevancy | Results per page 25

- Acupuncture for Bell's palsy**  
Ning Chen, Muke Zhou, Li He, Dong Zhou, N Li  
Intervention Review 4 August 2010 New search  
Show preview
- Acupuncture for the prevention of episodic migraine**  
Klaus Linde, Gianni Allais, Benno Brinkhaus, Yutong Fei, Michael Mehring, Emily A. Vertosick, Andrew Vickers, Adrian R White  
Intervention Review 28 June 2016 Free access  
Show PICOs Show preview

**Cochrane Library** Trusted evidence. Informed decisions. Better health.

English English Sign In

Title Abstract Keyword

Cochrane Reviews ▾ Trials ▾ Clinical Answers ▾ About ▾ Help ▾

**We noticed your browser language is Traditional Chinese.**  
You can select your preferred language at the top of any page, and you will see translated Cochrane Review sections in this language. Change to **Traditional Chinese**.

Cochrane Database of Systematic Reviews | Review - Intervention

## Acupuncture for pain in endometriosis

Xiaoshu Zhu, Kindreth D Hamilton, Ewan D McNicol Authors' declarations of interest

Version published: 07 September 2011 [Version history](#)  
<https://doi.org/10.1002/14651858.CD007864.pub2>

### Abstract

*Available in* [English](#) | [Español](#) | [Français](#) | [日本語](#) | [한국어](#) | [Português](#) | [简体中文](#)

### Background

Endometriosis is a prevalent gynaecological condition, significantly affecting women's lives. Clinical presentations may vary from absence of symptoms to complaints of chronic pelvic pain, most notably dysmenorrhoea. The management of pain in endometriosis is currently inadequate. Acupuncture has been studied in gynaecological disorders but its effectiveness for pain in endometriosis is uncertain.

### Objectives

To determine the effectiveness and safety of acupuncture for pain in endometriosis.

### Search methods

We searched the Cochrane Menstrual Disorders and Subfertility Group (MSDG) Specialised Register of controlled trials, Cochrane

### Contents

- Abstract**
- PICOs
- Plain language summary
- Authors' conclusions
- Background
- Objectives
- Methods**
- Results
- Discussion
- Appendices**
- Figures and tables
- Search strategies**
- Data and analyses
- Download statistical data

**Zhu (2011): Acupuncture for pain in endometriosis****Appendix 1. Electronic Searches: Ovid**

- 10 exp Acupuncture/ (758)
- 11 exp acupuncture therapy/ or exp acupuncture analgesia/ or exp electroacupuncture/ or exp meridian (11341)
- 12 acupressure\$.tw. (321)
- 13 Acupuncture.tw. (8965)
- 14 (electroacupuncture or
- 15 meridian\$.tw. (2643)
- 16 mox\$.tw. (4513)
- 17 (shiatsu or tui na).tw. (5
- 18 needling.tw. (777)
- 19 shu.tw. (317)
- 20 acup\$ point\$.tw. (752)
- 21 or/10-20

**Li (2011): Acupuncture for Attention Deficit Hyperactivity Disorder...****Appendix 1. Search strategy for MEDLINE (Ovid)**

- 14 acupuncture therapy/ or acupuncture, ear/ or electroacupuncture/
- 15 acupunct\$.tw.
- 16 or/14-15

**Cheuk (2012): Acupuncture for insomnia****Appendix 2. Search strategy for MEDLINE**

1. exp acupuncture/
2. acupunc\$.mp
3. acupress\$.mp
4. electroacupunc\$.mp
5. meridian\$.mp
6. acupoints\$.mp
7. or/1-7



請幫我找出下列三篇文章的搜尋策略中，  
"針灸"有關的檢索詞，有哪些還沒有整理到我的詞彙清單的

----- 三篇文章 (Cochrane SR 截圖) -----

: **Acupuncture** for pain in endometriosis

-----  
**Appendix 1. Electronic Searches: Ovid**

- 10 exp Acupuncture/ (758)
- 11 exp acupuncture therapy/ or exp acupuncture analgesia/ or exp electroacupuncture/ or exp meridian (11341)
- 12 acupressure\$.tw. (321)
- 13 Acupuncture.tw. (8965)
- 14 (electroacupuncture or
- 15 meridian\$.tw. (2643)
- 16 mox\$.tw. (4513)
- 17 (shiatsu or tui na).tw. (5
- 18 needling.tw. (777)
- 19 shu.tw. (317)
- 20 acup\$ point\$.tw. (752)
- 21 or/10-20

**Li (2011): Acupuncture for Attention Deficit Hyperactivity Disorder...**

-----  
**Appendix 1. Search strategy for MEDLINE (Ovid)**

- 14 acupuncture therapy/ or acupuncture, ear/ or electroacupuncture/
- 15 acupunct\$.tw.
- 16 or/14-15

**Cheuk (2012): Acupuncture for insomnia**

-----  
**Appendix 2. Search strategy for MEDLINE**

- 1. exp acupuncture/
- 2. acupunc\$.mp
- 3. acupress\$.mp
- 4. electroacupunc\$.mp
- 5. meridian\$.mp
- 6. acupoints\$.mp
- 7. or/1-7

----- 我的同義詞 -----

- acupunctur\*
  - acupress\*
  - acu-point\*
  - electroacupunctur\*
  - "Zhen Jiu"
  - ZhenJiu
  - meridian\*
  - moxibustion\*
  - auriculotherap\*
  - TENS
  - PENS
- ((transcutaneous percutaneous transdermal cutaneous) NEAR/3 (stimulat\* electrostimulat\* neuromodulat\*))

----- 我的控制詞彙 -----

- Acupuncture
- Acupuncture Therapy
- Acupressure
- Transcutaneous Electric Nerve Stimulation



## 比對結果

根據三篇文章的檢索策略，以下是與「針灸」相關但尚未包含在你的檢索詞清單中的詞彙：

### 尚未整理到的同義詞

1. shiatsu
2. tui na ( 推拿 )
3. needling
4. shu ( 可能指膻穴 )
5. auricular acupuncture ( 與 auriculotherapy 相關，但未完全相同 )

### 尚未整理到的控制詞彙

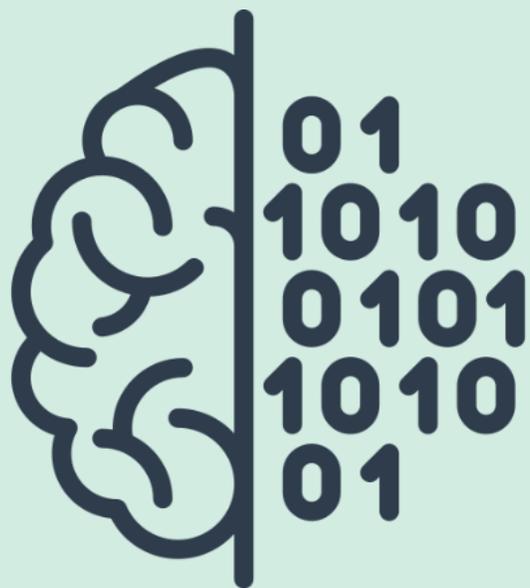
1. Acupuncture, Ear ( 在 Li (2011) 中出現，可能屬於 MeSH 詞彙 )
2. Moxibustion ( 你有 moxibustion\* 但未列為控制詞彙，或許可以加入 )

### ----- 我的同義詞 -----

acupunctur*	((transcutaneous
acupress*	percutaneous
acu-point*	transdermal
electroacupunctur*	cutaneous)
"Zhen Jiu"	NEAR/3
ZhenJiu	(stimulat*
meridian*	electrostimulat*
moxibustion*	neuromodulat*)
auriculotherap*	
TENS	
PENS	

### ----- 我的控制詞彙 -----

Acupuncture  
 Acupuncture Therapy  
 Acupressure  
 Transcutaneous Electric Nerve Stimulation



# 負責任的AI使用

# Artificial intelligence to enhance hemodynamic management in the ICU

Alexander P. J. Vlaar<sup>1\*</sup>, Sheila N. Myatra<sup>2</sup> and Christian Jung<sup>3</sup>

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Dear Editor,

Artificial intelligence (AI) has significantly transformed hemodynamic monitoring, with potential for more advancements in the future. AI offers new monitoring methods beyond classical pressure and waveform analyses, incorporating advanced image analysis and intensive waveform evaluations (Fig. 1). In this letter, we explore AI's current and future impact on various areas of hemodynamic monitoring.

## Optimizing current hemodynamic monitoring

Different clinical settings require different monitoring strategies. In pediatric and neonatal intensive care, non-invasive monitoring is preferred for patients without shock. AI-based thermal imaging can predict shock, allowing for contact or invasive monitoring only when necessary, thus improving resource management and patient experience [1].

AI also enhances existing monitoring devices, including such with electrocardiograms (ECG). Deep neural networks analyzing single-lead ECG data can detect elevated left atrial pressure and estimate left ventricular ejection fraction [2]. For invasive monitoring, AI-driven pulse contour analysis extracts stroke volume (SV) from arterial waveforms, outperforming traditional methods [3].

Further, AI has the potential to address challenges such as normal blood pressure masking compromised cerebrovascular reserve. Support vector machines trained on data like blood pressure, near-infrared spectroscopy (NIRS) brain oxygenation, and transcranial

Doppler (TCD) blood flow velocity have shown promise in predicting hypovolemia, with TCD showing the highest specificity [4]. Though not the standard of care due to complexity, AI could make such techniques clinically viable and also more user-independent.

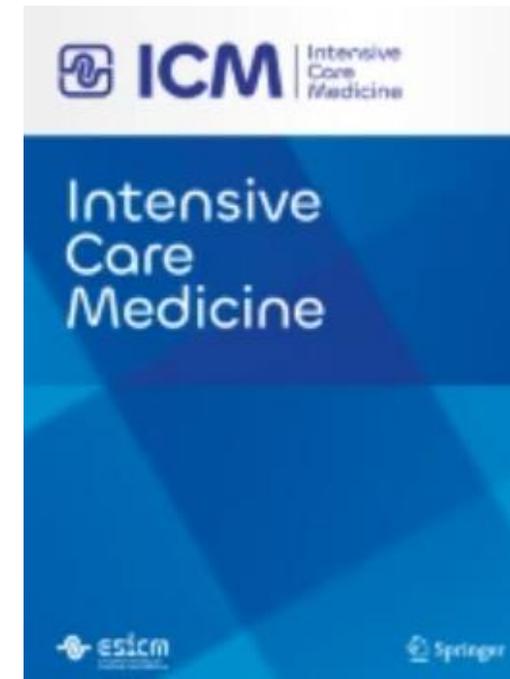
## Predicting hemodynamic deterioration

The ICU has a data-rich environment, especially in hemodynamic monitoring, making it ideal for AI applications. Algorithms like the Hypotension Prediction Index (HPI) can predict hypotension before it occurs by analyzing arterial waveforms, which may remain stable due to compensatory mechanisms [5]. Applying AI like HPI in randomized trials has shown significant reductions in hypotension episodes in intensive care unit (ICU) settings [15]. These trials show that to truly impact clinical practice, behavioral changes and compliance with AI-derived algorithms are essential [6].

## Classification or characterization of hemodynamic conditions

AI helps classify patients and conditions such as distinguishing between arterial fibrillation and sinus rhythm [7]. AI models can even predict the onset of arrhythmias, paving the way for pre-emptive interventions. Aortic valve stenosis (AoS) is another condition that can benefit from AI-driven classification. AoS is typically diagnosed with transthoracic echocardiography (TTE), but AI models using blood pressure waveforms can non-invasively detect it, with promising accuracy [8, 9]. This approach could reduce the need for routine TTE, and broaden screening strategies for valve abnormalities which can be potentially extended to other valve abnormalities.

Springer Nature  
JIF: 22.1 (Rank: 2/62)



RETRACTED ARTICLE: Artificial intelligence to enhance hemodynamic management in the ICU  
Intensive Care Medicine, 2026 (e-pub 2024) [Letter] <https://doi.org/10.1007/s00134-024-07752-6>

Retraction Watch <https://retractionwatch.com/2026/01/28/medical-journal-publishes-a-paper-on-ai-with-a-fake-reference-to-itself>

AI models showing technical success, few randomized controlled trials (RCTs) demonstrate improved patient outcomes or increased healthcare efficiency. Regulatory authorities currently assess whether AI models perform as stated, but this does not guarantee clinical efficacy. Moreover, there is a lack of guidance on how frequently AI models should be updated or revalidated to ensure continued accuracy in changing clinical settings.

In conclusion, while AI holds immense promise for transforming hemodynamic monitoring, successful integration into clinical practice requires thorough validation, regular updates to ensure ongoing accuracy, integration into existing healthcare infrastructure and a focus on improving clinical outcomes.

#### Author details

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#### Conflicts of interest

SNM: No conflicts of interest. APJ Vlaar: receiving grants and consulting fees of Edwards Lifesciences paid to the institution. CJ: No conflicts of interest.

#### Public

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Published

#### Referen

1. Ab...  
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引用 15篇文章

10篇 完全虛假

1篇 偽ICM文章

作者表示：「肇因於使用 AI，將引用文章的 PubMed ID 轉換為 "結構化書目清單" 導致」

RETRACTED ARTICLE: Artificial intelligence to enhance hemodynamic management in the ICU Intensive Care Medicine, 2026 (e-pub 2024) [Letter] <https://doi.org/10.1007/s00134-024-07752-6>

Retraction Watch <https://retractionwatch.com/2026/01/28/medical-journal-publishes-a-paper-on-ai-with-a-fake-reference-to-itself>

# 博士論文遭疑虛構文獻 | 政大國發所：下架並調查

中央通訊社 2026/3/13

(中央社記者許秩維台北13日電) 政大國發所傳出學生博士學位論文遭質疑虛構參考文獻，所方今天表示，該論文出現AI工具生成書目的錯漏，已先下架，並進入相關調查、審議程序，將秉公

## 論文出現AI工具生成書目的錯漏

中山大學社會系教授葉高華近日在網路社群發文，提到有政大學生的博士學位論文在參考文獻中，列出署名他的政大民族系博士論文，但他並未寫過這篇論文，更未取得政大民族系的

## 為避免學術同儕查閱參考資料時引用錯誤，先行下網

政治大學國家發展研究所今天在官網發表聲明指出，近日所上有博士學位論文的參考文獻被社交平台與媒體指「虛構參考文獻」；經初步了解，該論文上傳資料庫的參考文獻出現AI工具生成書目的錯漏，為避免學術同儕查閱參考資料時引用錯誤，已請學校將該論文於資料庫先行下網。

政大國發所提到，此案已依校內學生學位論文學術倫理審議辦法，進入相關調查、審議程序，將依法令規範與學術專業秉公進行處置。

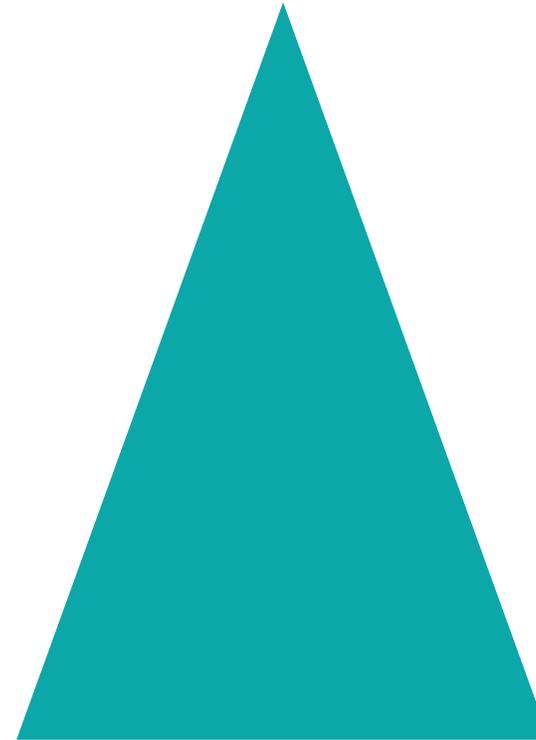
# AI幫文獻回顧

研究終點

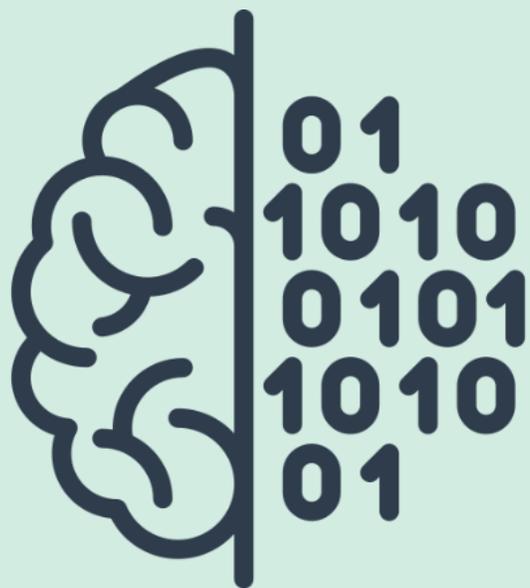
- 文獻回顧生成
- 文獻篩選與萃取
- 參考文獻蒐集
- 建立骨架→ 提綱挈領
- 檢索詞 / 檢索策略形成

研究起點

坐享其成多 查證重



坐享其成少 查證輕



# 負責任的AI使用

- 查證三律
- 揭露與引用

# 查證三律

- AI引用真實文獻
- AI資訊與原文一致
- AI資訊與事實一致

查證一

## ☑ AI引用真實文獻(書目)

- 直接使用可信賴的 Scopus / WOS AI
- 反查學術資料庫      ↻ PubMed(醫)、Scopus / WoS、期刊官網
- AI須附上來源連結

篇名	期刊名稱
----	------

Effects of Moderate-Intensity Aerobic Exercise on Blood Glucose Levels and Pregnancy Outcomes in Patients With Gestational Diabetes Mellitus: A Randomized Controlled Trial	Diabetes Therapy
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------

Exercise Intervention Improves Blood Glucose Levels and Adverse Pregnancy Outcomes in GDM Patients: A Meta-Analysis

## Diabetes Therapy

2022	9項 RCT，共 1289 名孕婦	溫和至中等強度的身體活動	運動顯著改善空腹血糖、餐後2小時血糖和 HbA1c，減少不良妊娠結局	系統性綜述與薈萃分析
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Meta-Analysis

> [Comput Math Methods Med.](#) 2022 Sep 22;2022:9287737.

doi: 10.1155/2022/9287737. eCollection 2022.

# Exercise Intervention Improves Blood Glucose Levels and Adverse Pregnancy Outcomes in GDM Patients: A Meta-Analysis

Xiaoyan Li <sup>1</sup>, Rong Luo <sup>2</sup>, Binbin Qiao <sup>3</sup>, Haiwei Ou <sup>3</sup>

Affiliations + expand

PMID: 36238491 PMCID: [PMC9553359](#) DOI: [10.1155/2022/9287737](#)

連結

查證二

## ☑ AI資訊與原文一致

擴充解讀原文

曲解原文意義

製造假資訊

?

- 領域知識 / 敏感度
- 逐一查核
- 左右並列對照 (Ctrl+F)
- 自建知識源: **Google NotebookLM**

[ AI 彙整表 ]

缺血性中風

> 4.5 小時

溶栓治療 (IVT)

致顱內出血風險

Domain ↕	Summary of Evidence ↕	Safety Profile ↕	Patient Selection ↕
<b>Safety</b> ↕	IVT is generally safe within 4.5 hours; risk increases with delayed treatment [9][10]. ↕	Symptomatic intracranial hemorrhage rates: 2–7% within 4.5 hours, higher beyond [3]. ↕	Patients with low NIHSS scores and no recent stroke have better outcomes [1][2]. ↕

3. Turc G et al., Intravenous thrombolysis for acute ischemic stroke *Diagnostic and Interventional Imaging*. 2014; 95:1129-33.

Intravenous thrombolysis (IVT) with alteplase remains the standard treatment for acute ischemic stroke. Although IVT can be started up to 4.5 hours after symptoms' onset, it is all the more effective and safe when started early. It allows a 10% absolute reduction in the risk of handicap or death at 3 months, despite a 2-7% risk of symptomatic intracranial hemorrhage. Current research efforts involve firstly trying to treat a larger proportion of patients by overcoming some of the contraindications to IVT and secondly assessing combined or alternative treatments to achieve a higher early recanalization rate.

[ AI 彙整表 ]

## 缺血性中風

> 4.5 小時

溶栓治療 (IVT)

致顱內出血風險

Domain ↕	Summary of Evidence ↕	Safety Profile ↕	Patient Selection ↕
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Intravenous thrombolysis (IVT) with alteplase remains the standard treatment for acute ischemic stroke. Although IVT can be started up to 4.5 hours after symptoms' onset, it is all the more effective and safe when started early. It allows a 10% absolute reduction in the risk of handicap or death at 3 months, despite a 2-7% risk of symptomatic intracranial hemorrhage. Current research efforts involve firstly trying to treat a larger proportion of patients without contraindications to IVT and secondly exploring alternative treatments to achieve

✘ 全文找不到以下內容：

- 沒有說“4.5 小時後 sICH 比 4.5 小時內更高”
- 沒有提供任何數據比較早期 vs 延後時間窗的 sICH



來源



+ 新增

🔍 探索

選取所有來源

- 2025台灣腦中風學會急性缺血性腦中風靜脈血栓溶解治療指...
- Al-Ajlan-2024-Golden Hour Intravenous Thrombol.pdf
- Aladawi-2025-Tenecteplase Beyond 4.5 Hours in.pdf
- Goh-2025-Female Sex is associated with reduced thrombol...
- Hong-2025-Effect of Time Delay on Reperfusion.pdf
- Song-2024-Thrombolysis with Recombinant Human.pdf
- Yan-2025-Alteplase for Posterior Circulation I.pdf
- Zhou-2025-Alteplase for Acute Ischemic Stroke.pdf

對話



# tPA for ischemic stroke

2 個來源

此文件為2025年台灣腦中風學會針對急性缺血性腦中風靜脈血栓溶解治療提出的最新指引，旨在提供醫護人員實證基礎的建議。內容更新了靜脈血栓溶解治療的時間窗、藥物劑量，並探討了輕微中風、有近期中風病史、正在使用口服抗凝血劑（DOAC）、合併多種內科或腦部疾病的病人，以及動脈內血栓移除治療（EVT）時代的治療策略。此外，指引亦涵蓋了靜脈血栓溶解治療後的併發症處理與照護建議，並根據科學實證分級建議強度與證據等級，強調在臨床實踐中需綜合考量法規、藥品仿單與健保政策。

📌 儲存新記事



📄 新增記事

🗣️ 語音摘要

🧠 心智圖

工作室



🗣️ 語音摘要



📺 影片摘要



🧠 心智圖

📄 報告

📄 學習卡



📄 測驗



📊 資訊圖表



📄 簡報



📄 臺灣腦中風治療指引更新與性別...  
簡介文件 · 2 個來源 · 74 天前

📄 澳洲中風治療中的性別差異與影...  
簡介文件 · 1 個來源 · 80 天前

📄 澳洲女性中風治療：血栓溶解劑...  
學習指南 · 1 個來源 · 80 天前

📄 2025台灣急性缺血性腦中風靜脈...  
簡介文件 · 1 個來源 · 89 天前

📄 新增記事

連結 / 上傳  
您認可的文獻

缺血性中風患者有多少比例在  
4.5小時內接受IVT治療？  
(請整理為表格)

8 個來源



來源

### Al-Ajlan-2024-Golden Hour Intravenous Thrombol.pdf

來源導覽

assessment or publication bias using methods, such as Egger's test or meta-regression, was not feasible.<sup>21,22</sup>

Results Search and Screening Results After removal of duplicate records, we screened 1,677 abstracts for eligibility. A total of 22 records were retrieved for full-text eligibility. Of those, 7 studies<sup>4-10</sup> were deemed eligible based on our inclusion criteria. A detailed flow diagram of the literature search process is provided in Figure S1.

Study Characteristics and Risk of Bias We included 7 articles<sup>4-10</sup> published between 2015 and 2023, comprising a total of 78,826 patients treated with intravenous thrombolysis. Golden hour thrombolysis was administered in 1,613 patients, whereas 77,213 patients received thrombolytic therapy outside the golden hour. Among included patients, only 1% (n = 799) of patients were treated in MSU settings. Two articles<sup>4,7</sup> reported out-comes of patients treated in the settings of MSU, and reported higher rate of golden hour thrombolysis compared with non-MSU setting (259/799 [32.4%] vs 1432/78,027 [1.8%]).<sup>6,5,8-10</sup> Table summarizes the baseline patients and TABLE. Overview of Included Studies

Study ID Settings Total, N

Within golden hour (<60 min) Outside golden hour (60-270 min)

n (%) % Male Age (yr), mean (SD)

Initial NIHSS n (%) % Male

Age (yr), mean (SD) Initial NIHSS

對話

極早期治療比例	在涵蓋 78,826 名接受 IVT 治療患者的統合分析中，於發病後 60 分鐘內（黃金一小時）接受溶栓的患者比例	1.34% (878/65,384) 至 21.89% (206/941)；整體數據庫中約 2.05% (1,613/78,826)	這是「黃金一小時」治療率的範圍，顯示超早期治療的比例極低
南澳研究：4.5 小時內到院比例	澳洲南澳對無絕對溶栓禁忌症的 AIS 患者（總數 3,484 人）中，能在症狀發作後 4.5 小時內到院就診的比例	- 總計 82.6%	
	- 4.5 小時內到院的女性患者比例	81.63% (1240/1519)	
	- 4.5 小時內到院的男性患者比例	83.36% (1638/1965)	
總體 IVT 治療	澳洲南澳研究中，符合條件的 AIS 患者（無絕對禁忌症）總數	21.35% (744/3484)	

**黃金一小時：接受 IVT 2.05% (1,613 / 78,826 人)**

開始輸入... 8 個來源

- 急性缺血性中風 IVT 的標準治療時間窗？
- TNK 用於急性中風的標準劑量為何？
- 中風 4.5 至 9 小時 IVT 影像篩選條件為何？

工作室

- 語音摘要
- 影片摘要
- 心智圖
- 報告
- 測驗
- 簡報

- 更新與性別... 4 天前
- 澳洲中風治療中的性別差異與影... 簡介文件 · 1 個來源 · 80 天前
- 澳洲女性中風治療：血栓溶解劑... 學習指南 · 1 個來源 · 80 天前
- 2025 台灣急性缺血性腦中風靜脈... 簡介文件 · 1 個來源 · 89 天前

新增記事

一張AI彙整表

在正要送出的  
研究計畫

您發現哪一格  
不太對勁？

Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
<b>Effectiveness</b>	IVT beyond 4.5h improves functional outcomes in selected patients <a href="#">1</a> <a href="#">2</a> <a href="#">3</a> <a href="#">4</a> <a href="#">5</a>	Increased sICH risk, no rise in mortality <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	Advanced imaging essential <a href="#">4</a> <a href="#">5</a> <a href="#">9</a> <a href="#">10</a>	CT perfusion, MRI DWI/FLAIR
<b>Safety</b>	Comparable mortality to standard window; higher sICH and parenchymal hemorrhage <a href="#">3</a> <a href="#">6</a> <a href="#">7</a> <a href="#">8</a>	sICH risk modulated by comorbidities, statin use, age <a href="#">2</a> <a href="#">11</a> <a href="#">12</a>	Imaging and clinical scores (NIHSS, ASPECTS) <a href="#">13</a> <a href="#">14</a> <a href="#">15</a>	MRI safer than CT in some studies <a href="#">16</a>
<b>Subgroup Outcomes</b>	LVO, anterior circulation: improved outcomes with tenecteplase <a href="#">17</a> <a href="#">18</a> <a href="#">19</a>	Elderly: no increased mortality, but worse outcomes <a href="#">2</a> <a href="#">20</a>	Diabetes, AF: higher risk, but still benefit <a href="#">21</a> <a href="#">22</a> <a href="#">23</a>	DWI/FLAIR mismatch for unknown onset <a href="#">5</a>
<b>Research Gaps</b>	Need for large RCTs, standardization, subgroup data <a href="#">2</a> <a href="#">6</a> <a href="#">24</a> <a href="#">25</a>	Implementation barriers in low-resource settings <a href="#">26</a> <a href="#">27</a>	Optimal imaging thresholds unclear <a href="#">6</a> <a href="#">9</a> <a href="#">25</a> <a href="#">28</a>	Automated imaging promising [creative_insights]

Domain	Summary of Evidence	Safety Profile	Patient Selection	Imaging Modalities
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**Automated imaging promising [creative\_insights]**

查證三

## ☑ AI資訊與事實一致

引用來源的權威性

引用弱證據—掠奪性期刊

引用假文章—論文工廠

?

- 確認來源是否被重要索引資料庫收錄
- 更完整的文獻搜尋
- 領域知識 / 敏感度



傳統

Keywords/SR

搜尋  
vs.

AI Elicit Pro  
Natural Language



敏感度

95%

40%

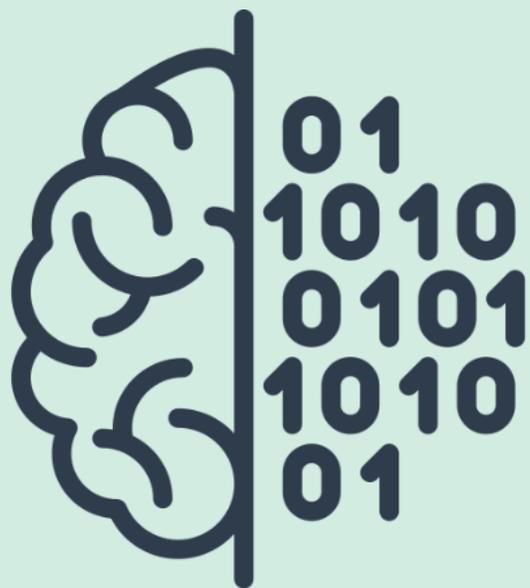
→ 無法取代傳統

精準度

8%

42%

→ 探勘檢索  
種子論文  
補充檢索



## 負責任的AI使用

- 查證三律
- 揭露與引用

# To cite

or

# Not to cite?

- 當做「工具」的引用
  - 描述使用方法
  - 如同使用SPSS、EndNote
- 透明揭露其參與  
啟發人們如何利用這些創新工具促進學術研究，增加可再現性和誠實性
- 引用的人通常關心—  
著作權和來源歸屬

- 不當做「資訊來源」的引用
  - 不當成文獻或事實依據
- 「間接引用」不應被鼓勵
- 缺乏可驗證性：讀者無法根據來源充份核實
- 回音室、過濾泡泡、後真相
  - 觀點窄化「感覺正確」凌駕「事實正確」
- 資訊汙染風險
  - AI 循環吃下AI資訊 ↻ ↻資訊品質惡化

[https://scholarlykitchen.sspnet.org/2024/06/19/chatbots-to-cite-or-not-to-cite-part-1/?informz=1&nbd=&nbd\\_source=informz](https://scholarlykitchen.sspnet.org/2024/06/19/chatbots-to-cite-or-not-to-cite-part-1/?informz=1&nbd=&nbd_source=informz)

<https://scholarlykitchen.sspnet.org/2024/06/20/the-case-for-not-citing-chatbots-as-information-sources-part-ii/>

# 揭露與引用—APA Style

- AI 是指生成式大型語言模型的AI 工具
- 不包含且不需要被引用或揭露：  
AI的文法檢查軟體、書目管理軟體或抄襲檢測的工具

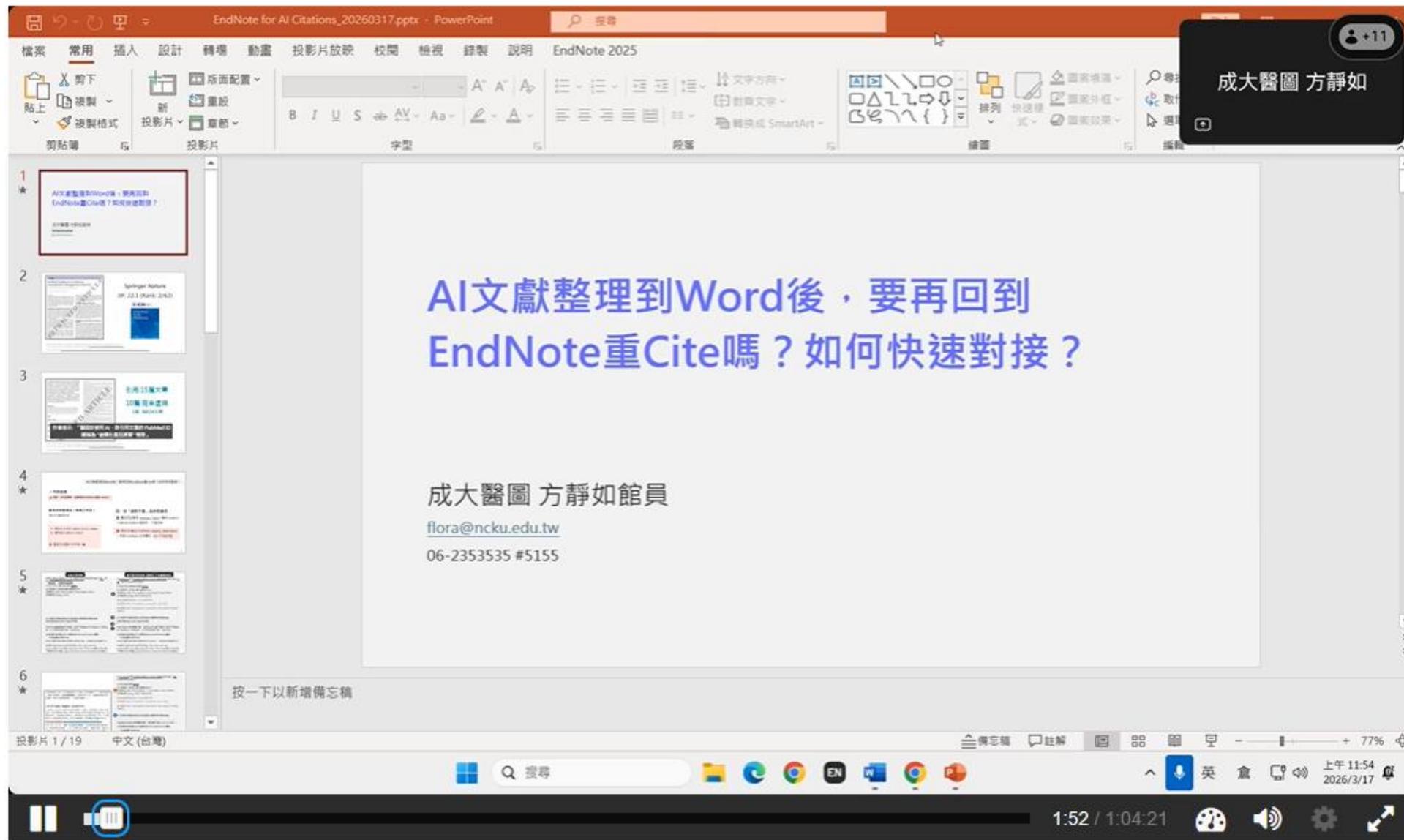
- 撰寫稿件的過程中使用AI時，必須在「研究方法 Methods」的部份揭露 AI 的使用，說明使用方式、時間及使用程度，並加以引用。
- 採用「軟體引用」格式

OpenAI. (2023). *ChatGPT* (Mar 14 version) [Large language model]. <https://chat.openai.com/chat>

軟體製作者. (使用版本的年份). *產品名稱* (產品版本) [軟體為大型語言模型]. 網址

- AI不得被列為作者
- 必須將AI的完整輸出內容作為補充資料上傳。
- 作者對其文章中任何資訊的準確性負責。作者必須驗證AI工具提供給他們的任何資訊和引文。作者可以出於特定目的(例如編輯)使用 AI 工具，但必須揭露 AI 工具。
- 當資訊輸入AI時，運行 AI 的組織可能會存取這些資料，因此作者/編輯/審稿者都需要注意!

# 2026/03/17 AI文獻整理到Word後，要再回到EndNote重Cite嗎？



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[講義下載] [https://medlib.lib.ncku.edu.tw/medlib/about/coursedoc/view.php?name=20260317\\_EndNote\\_for\\_%20AI\\_Citations.zip](https://medlib.lib.ncku.edu.tw/medlib/about/coursedoc/view.php?name=20260317_EndNote_for_%20AI_Citations.zip)



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AI濃縮成一句結論餵給人類

館員說：

認真用AI的人類

要看的資訊變多了

看原文 + 看AI見解 + 各種版式

認真的您

在與AI激盪和精鍊的過程

研究品質與產量一定會更好 😊