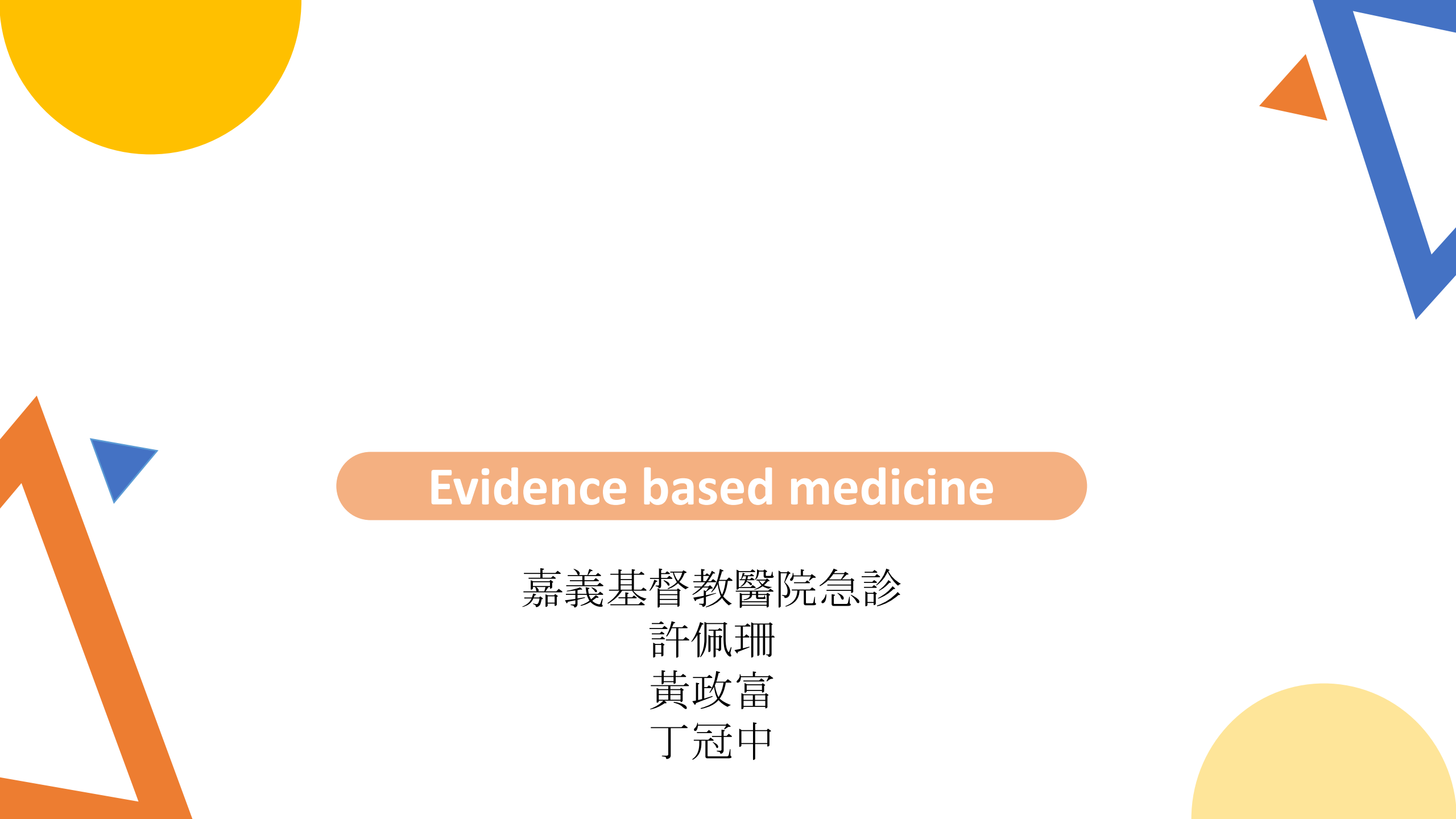




Evidence based medicine

嘉義基督教醫院急診

許佩珊

黃政富

丁冠中

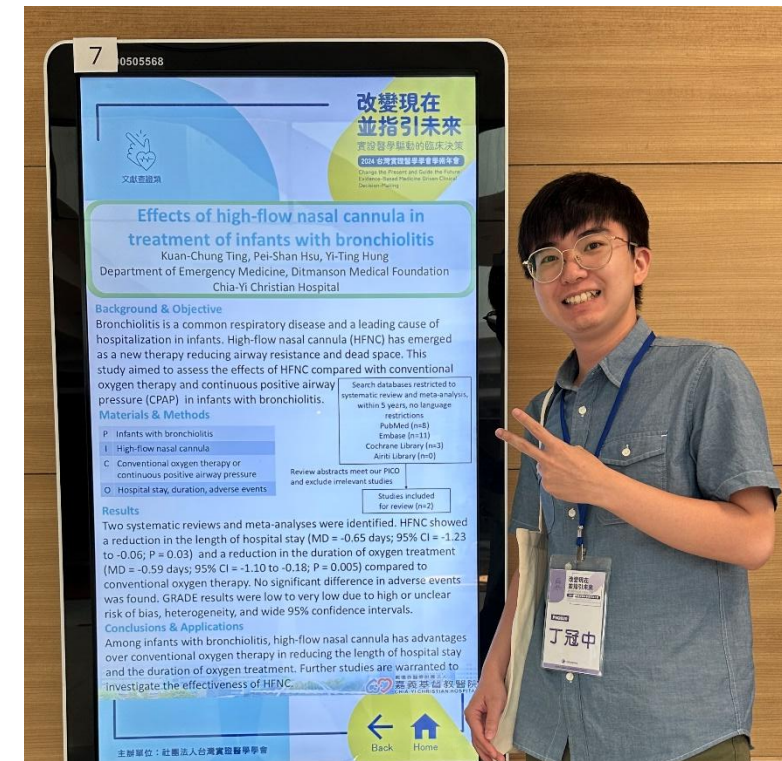
成員介紹



許佩珊護理師



黃政富醫師



丁冠中醫師

AI輔助



ChatGPT



Napkin

臨床情境

影響小莊健康決策的因素



你是專業的醫療人員也是實證醫學專家，請分析PICO架構



當然可以！PICO 架構是實證醫學中用來形成臨床問題並指導文獻檢索的一種有用工具。以下是 PICO 的基本組成及分析方法：

請以你的介紹的架構，幫我分析下面的臨床情境，並以表格方式呈現 PICO

關於P,要包含基本資訊,相關共病,患者價值,社經地位;關於I,要包含藥物選擇,介入劑量,途徑頻率,治療時間;關於C,要包含對照選擇,安慰劑組,標準治療,輔助治療;關於O,要包含重要指標及替代指標或者類別變項及連續變項。如果在臨床情境裡面沒有,請提醒缺乏哪些元素。

###

小莊是一位30出頭的年輕醫療工作者，由於工作的性質，常常需要長時間在電腦前坐著。忙碌的醫院生活讓他幾乎沒有時間運動，下班後總是覺得身心疲憊，只想吃點鹹酥雞來犒賞自己，然後早早洗洗睡。然而，隨著年齡增長，小莊漸漸感受到體力的下降和代謝的變慢。最近的公司健檢報告顯示出讓他頗為擔心的結果：



以下是根據您提供的臨床情境，按照 PICO 架構進行的分析，並以表格形式呈現：

PICO 元素	內容分析
P (Population)	基本資訊： 30出頭男性，醫療工作者，久坐生活型態。 相關共病： 肥胖、脂肪肝、高三酸甘油酯、低 IDL。 患者價值： 希望有效減重且不影響生活工作，偏好可執行性高的治療方式。 社經地位： 醫療工作者，壓力大，生活忙碌，時間有限。
I (Intervention)	藥物選擇： GLP-1 類 (liraglutide、semaglutide)、SGLT2 抑制劑。 介入劑量： 需依臨床建議確定，建議參考標準劑量或逐步調整劑量。 途徑頻率： GLP-1 類通常皮下注射（每日或每週）；SGLT2 抑制劑為口服（每日）。 治療時間： 中長期（通常超過 12 週以觀察減重和代謝改善效果）。
C (Comparison)	對照選擇： 生活方式改變（飲食控制、運動）。 安慰劑組： 有些研究可能包含安慰劑作為對照。 標準治療： 僅透過飲食和運動改善健康指標的非藥物方案。 輔助治療： 中醫療法（如針灸或中藥）。
O (Outcome)	重要指標： - 類別變項：是否達到臨床顯著的體重減少（如 $\geq 5\%$ 體重減輕）。 - 連續變項：體重變化（公斤）、BMI 變化。 替代指標： 三酸甘油酯降低、IDL 提升、肝臟脂肪含量改善（影像學或血液指標）。 缺失指標： 患者感受（如生活品質變化）、藥物依從性、長期效果（需特別關注）。

臨床情境

主要問題

各種減重方式的成效

病人期望

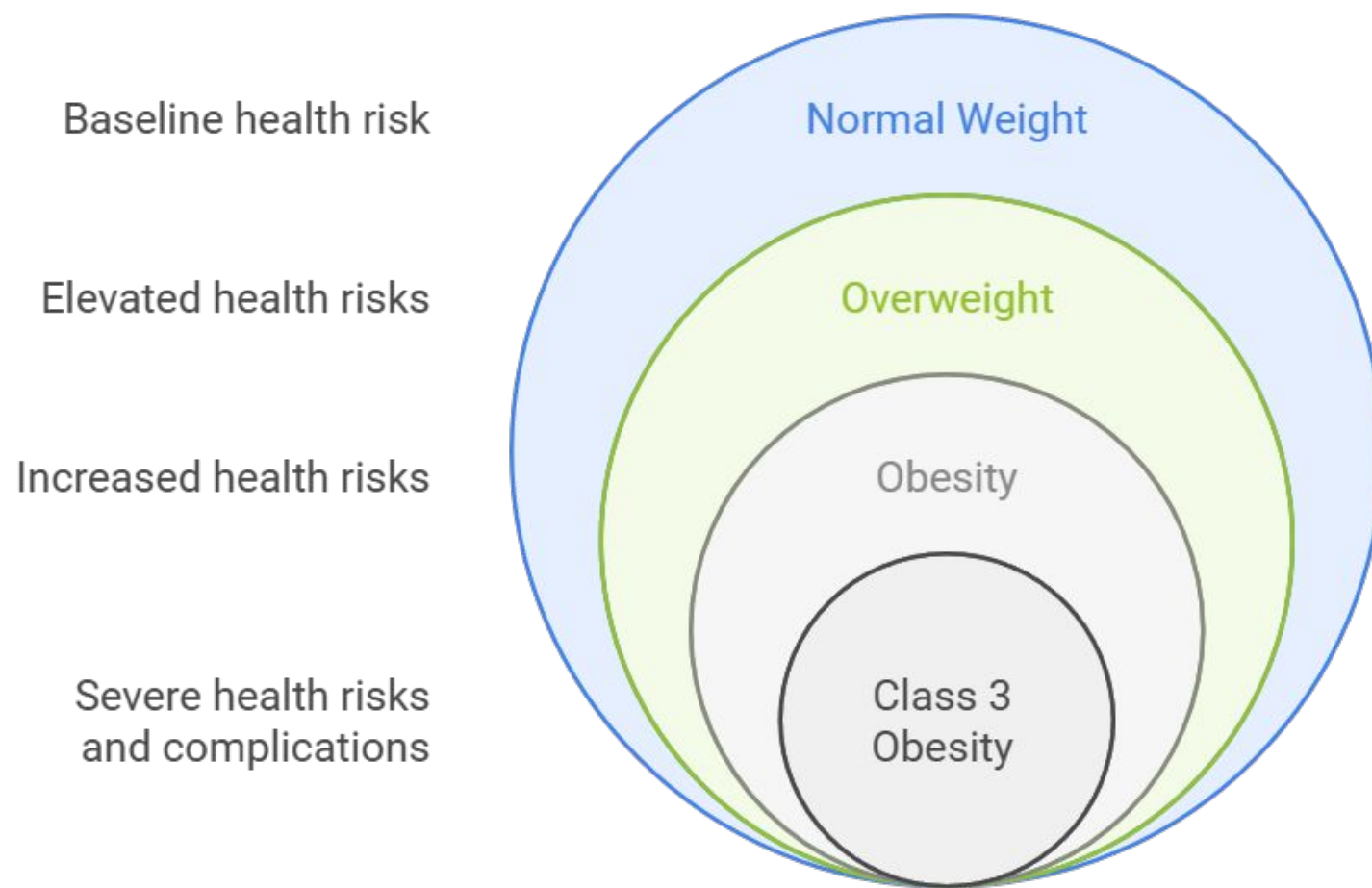
小莊希望達到減重效果

醫療考量

減重療效與安全性、有無副作用

背景知識

Hierarchy of Weight Classifications



Overweight:

BMI 25~29.9 kg/m²

Obesity:

BMI ≥ 30 kg/m²

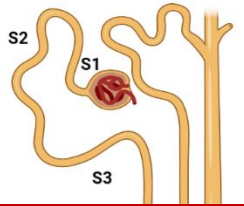
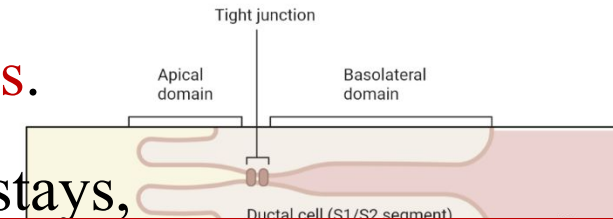
Class 3 Obesity:

BMI ≥ 40 kg/m² or ≥ 35 kg/m² in the presence of comorbidities)

背景知識-SGLT-2 Inhibitor

What is this drug used for?

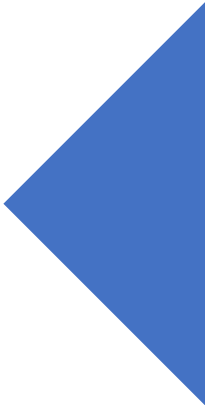
- Control blood sugar in people with type 2 diabetes.
- Lower the risk of urgent hospital visits, hospital stays,



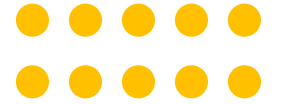
No FDA Approval for body weight loss

stays, and death, in people with certain kidney problems.





5



Ask

Acquire

Appraisal

Apply

Audit

根據臨床問題形成第一個 PICO

P

Adult male with obesity, fatty liver, hyperlipidemia, without DM

I

SGLT-2 inhibitor with standard care

C

Placebo, standard care, diet, exercise

O

Body weight loss, BMI reduction, side effect, waist circumference, hip circumference

☒ 治療型問題

☐ 診斷型問題

☐ 預後型問題

☐ 傷害型問題

☐ 篩檢型問題

根據臨床問題形成第二個 PICO

P

Adult male with obesity, fatty liver, hyperlipidemia, without DM

☒ 治療型問題

I

Intermittent fasting with standard care

☐ 診斷型問題

C

Normal dietary

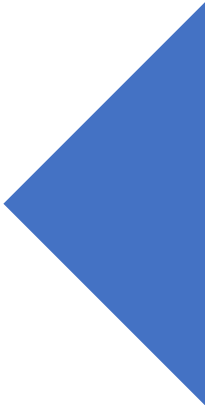
☐ 預後型問題

O

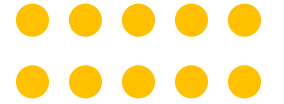
Body weight loss, BMI reduction, side effect, waist circumference, hip circumference

☐ 傷害型問題

☐ 篩檢型問題



5



Ask

Acquire

Appraisal

Apply

Audit

檢索策略

	Keywords / Free text / Synonyms	[MeSH terms]	中文
P	(overweight OR obes*) AND (non-diabe* OR no-diabe* OR "without diabe*") AND (adult) ("fatty liver" OR "liver steatosis" OR "hepatic steatosis" OR "hepatic fat infiltration" OR "fatty liver disease") ("dyslipidemia" OR "hyperlipidemia" OR "lipid disorders")	"Obesity"[Mesh] "Fatty Liver"[Mesh] AND "Non-alcoholic Fatty Liver Disease"[Mesh] Hyperlipidemias Dyslipidemias	肥胖、過重、超重 非糖尿病、脂肪肝 血脂異常
I	sodium glucose cotransporter 2 inhibitors OR canagliflozin OR dapagliflozin OR empagliflozin OR ipragliflozin OR tofogliflozin OR luseogliflozin OR sergliflozin OR remogliflozin OR ertugliflozin OR sotagliflozin	"Sodium-Glucose Transporter 2 Inhibitors"[Mesh] AND "Sodium-Glucose Transporter 2"[Mesh]	鈉-葡萄糖共同轉運器-2 抑制劑
C	Control groups, Placebo Standard therapy Diet control, physical activity	"Control groups"[Mesh] "Placebo"[Mesh] "Diet"[Mesh]	對照組、安慰劑 標準治療、飲食控制 運動
O	weight loss, weight reduction, body weight decrease, weight management, BMI reduction side effect, waist circumference, hip circumference	"Body Mass Index"[Mesh] Body Weight"[Mesh] "Weights and Measures"[Mesh] "Weight Reduction Programs"[Mesh]	減重、BMI 腰圍、臀圍 副作用

AI輔助

PICO	英文同義詞	控制詞彙 MeSH	控制詞彙 Emtree
P (Population)	obesity, obese, overweight, adiposity, high BMI, excessive weight, body weight disorders, weight gain	Obesity, Overweight	Obesity, Overweight
	non-diabetic, non diabetes, no diabetes, without diabetes	Non-Diabetic	Non-Diabetic, Non Diabetes
	adult, adults, young adult*, middle-aged, middle-aged person*, people	Adult	Adult
I (Intervention)	SGLT2 inhibitor, SGLT-2 inhibitor, SGLT 2 inhibitors, sodium-glucose cotransporter 2 inhibitor, sodium glucose co-transporter 2 inhibitor	Sodium-Glucose Transporter 2 Inhibitors	Sodium-Glucose Cotransporter 2 Inhibitor
	dapagliflozin, canagliflozin, empagliflozin, ertugliflozin, remogliflozin, sergliflozin	Dapagliflozin, Canagliflozin, Empagliflozin, Ertugliflozin	Dapagliflozin, Canagliflozin, Empagliflozin
C (Comparison)	placebo, standard care, usual care, dietary intervention, diet modification, physical activity, exercise	Placebo, Diet, Exercise	Placebo, Diet, Exercise
O (Outcome)	weight loss, weight reduction, body weight decrease, weight management, BMI reduction, obesity ↓	Weight Loss, Body Weight, Body Mass Index	Weight Loss, Body Weight, Body Mass Index

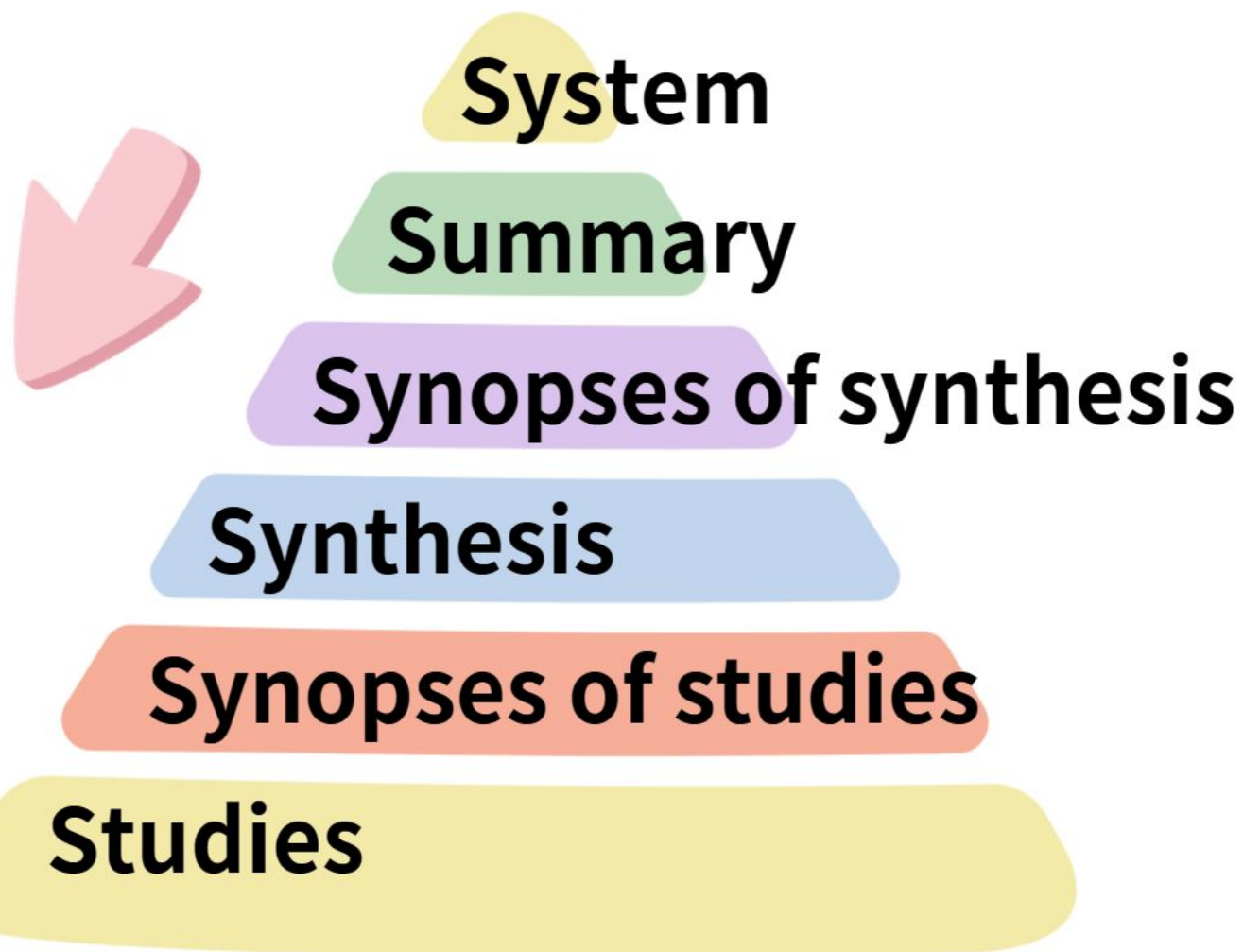
檢索策略

首選Level1: SR of RCT

Oxford Centre for Evidence-Based Medicine 2011 Levels of Evidence

Question	Step 1 (Level 1*)	Step 2 (Level 2*)	Step 3 (Level 3*)	Step 4 (Level 4*)	Step 5 (Level 5)
How common is the problem?	Local and current random sample surveys (or censuses)	Systematic review of surveys that allow matching to local circumstances**	Local non-random sample**	Case-series**	n/a
Is this diagnostic or monitoring test accurate? (Diagnosis)	Systematic review of cross sectional studies with consistently applied reference standard and blinding	Individual cross sectional studies with consistently applied reference standard and blinding	Non-consecutive studies, or studies without consistently applied reference standards**	Case-control studies, or "poor or non-independent reference standard**	Mechanism-based reasoning
What will happen if we do not add a therapy? (Prognosis)	Systematic review of inception cohort studies	Inception cohort studies	Cohort study or control arm of randomized trial*	Case-series or case-control studies, or poor quality prognostic cohort study**	n/a
Does this intervention help? (Treatment Benefits)	Systematic review of randomized trials or <i>n</i> -of-1 trials	Randomized trial or observational study with dramatic effect	Non-randomized controlled cohort/follow-up study**	Case-series, case-control studies, or historically controlled studies**	Mechanism-based reasoning
What are the COMMON harms? (Treatment Harms)	Systematic review of randomized trials, systematic review of nested case-control studies, <i>n</i> -of-1 trial with the patient you are raising the question about, or observational study with dramatic effect	Individual randomized trial or (exceptionally) observational study with dramatic effect	Non-randomized controlled cohort/follow-up study (post-marketing surveillance) provided there are sufficient numbers to rule out a common harm. (For long-term harms the duration of follow-up must be sufficient.)**	Case-series, case-control, or historically controlled studies**	Mechanism-based reasoning
What are the RARE harms? (Treatment Harms)	Systematic review of randomized trials or <i>n</i> -of-1 trial	Randomized trial or (exceptionally) observational study with dramatic effect			
Is this (early detection) test worthwhile? (Screening)	Systematic review of randomized trials	Randomized trial	Non-randomized controlled cohort/follow-up study**	Case-series, case-control, or historically controlled studies**	Mechanism-based reasoning

檢索策略



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檢索策略

臨床問題

Systematic Review
Meta-Analysis
RCT
Cohort Study

限定5年內
Full text
English
中文
台灣本土文獻

符合
PICO

檢索策略

Annals of Internal Medicine®

Articles | 21 August 2007

How Quickly Do Systematic Reviews Go Out of Date? A Survival Analysis FREE

Authors: Kaveh G. Shojania, MD, Margaret Sampson, MLIS, Mohammed T. Ansari, MBBS, MMedSc, MPhil, Jun Ji, MD, MHA, Steve Doucette, MSc, and David Moher, PhD | [AUTHOR, ARTICLE, & DISCLOSURE INFORMATION](#)

Publication: Annals of Internal Medicine • Volume 147, Number 4

The median survival time without substantive new evidence for the meta-analyses was **5.5 years**

搜尋 Pubmed

TEXT AVAILABILITY

- ☐ Abstract
- ☐ Free full text
- ☒ Full text

ARTICLE TYPE

- ☐ Books and Documents
- ☐ Clinical Trial
- ☒ Meta-Analysis
- ☒ Randomized Controlled Trial
- ☐ Review
- ☒ Systematic Review

PUBLICATION DATE

- ☐ 1 year
- ☒ 5 years
- ☐ 10 years
- ☐ Custom Range

輸入關鍵字

適當使用布林運算『**AND**』、『**OR**』

限定適當文章類型

『**Meta-Analysis**』文章

『**Systematic Reviews**』文章

『**Randomized controlled Trial**』文章

限定搜尋範圍

限定『**5年**』文章

限定『**Full text**』全文可供評讀

搜尋 Pubmed

Search	Actions	Details	Query	Results	Time
#6	...	>	Search: #1 AND #2 Filters: in the last 5 years, Meta-Analysis, Systematic Review Sort by: Most Recent	2	21:59:38
#5	...	>	Search: #1 AND #2 Filters: in the last 5 years, Meta-Analysis Sort by: Most Recent	2	21:59:24
#4	...	>	Search: #1 AND #2 Filters: in the last 5 years Sort by: Most Recent	19	21:59:20
#3	...	>	Search: #1 AND #2 Sort by: Most Recent	33	21:59:17
#2	...	>	Search: sodium glucose cotransporter 2 inhibitors OR canagliflozin OR dapagliflozin OR empagliflozin OR ipragliflozin OR tofogliflozin OR luseogliflozin OR sergliflozin OR remogliflozin OR ertugliflozin OR sotagliflozin Sort by: Most Recent	13,639	21:59:05
#1	...	✓	Search: (overweight OR obes*) AND (non-diabe* OR no-diabe* OR "without diabe*") AND (adult) Sort by: Most Recent ("overweight"[MeSH Terms] OR "overweight"[All Fields] OR "overweighted"[All Fields] OR "overweightness"[All Fields] OR "overweights"[All Fields] OR "obes*"[All Fields]) AND ("non diabe*" [All Fields] OR "no diabe*" [All Fields] OR "without diabe*" [All Fields]) AND ("adult"[MeSH Terms] OR "adult"[All Fields] OR "adults"[All Fields] OR "adult s"[All Fields]) Translations overweight: "overweight"[MeSH Terms] OR "overweight"[All Fields] OR "overweighted"[All Fields] OR "overweightness"[All Fields] OR "overweights"[All Fields] adult: "adult"[MeSH Terms] OR "adult"[All Fields] OR "adults"[All Fields] OR "adult's"[All Fields]	4,474	21:58:55

SR作為filters
篩選level 1文獻

P AND I

確認advanced
search正確

使用MeSH terms

搜尋Cochrane

Advanced Search

Search

Search manager

Medical terms (MeSH)

PICO search

Save this search

View/Share saved searches

Search help

+

Print search history

-	+	#1	MeSH descriptor: [Overweight] explode all trees	MeSH	25843
-	+	#2	sodium glucose transporter 2 inhibitor	Limits	1113
-	+	#3	#1 and #2	Limits	25
-	+	#4	Type a search term or use the S or MeSH buttons to compose	S MeSH Limits	N/A

✕ Clear all

Highlight orphan lines

Save this search

View/Share saved searches

Search help

輸入關鍵字
適當使用布林運算『AND』、『OR』
不限語言類型地區

搜尋 Embase

Final Keywords:

('obesity' AND 'sodium glucose cotransporter 2 inhibitor' AND non-diabetic adult)/br AND ('body weight loss') AND ([Systematic Review]/lim OR [Randomized Controlled Trial]/lim OR [Meta Analysis]/lim) AND [2020-2024]/py

- | | |
|----------------------------|---|
| ☐ 1 | Randomized study of the effects of empagliflozin and topiramate dual therapy on anthropometric and metabolic indices in non-diabetic individuals with overweight/obesity on a calorie-restricted diet
Abiri B., Ramezani Ahmadi A., Hosseiniapanah F., Valizadeh A., Zarghi A., Valizadeh M.
<i>Eating and Weight Disorders</i> 2024 29:1 Article Number 64
Embase MEDLINE NURSING ▼ Abstract ▼ Index Terms > View Full Text Similar records > |
| ☐ 2 | The efficacy and safety of a SGLT2 inhibitors on body weight in obese patients without diabetes: A systematic review and meta-analysis
Pormento M.K., Lingarajah S., Gautam R., Jain M., Jagani R., Jagani N., Ngardig N., Bobba S.H., Ghazarian K., Pagad S.
<i>Endocrine Practice</i> 2021 27:12 SUPPL (S6-S7)
Embase ▼ Abstract ▼ Index Terms > View Full Text Similar records > |
| ☐ 3 | Effect of SGLT2 inhibitors on weight reduction in overweight and obese population without diabetes: A systematic review and a meta-analysis
Cho Y.K., Kim Y.-J., Jung C.H.
<i>Journal of Diabetes Investigation</i> 2021 12:SUPPL 1 (17-)
Embase ▼ Abstract ▼ Index Terms > View Full Text Similar records > |
| ☐ 4 | Sodium-Glucose Co-Transporter-2 Inhibitors in Non-Diabetic Adults With Overweight or Obesity: A Systematic Review and Meta-Analysis
Zheng H., Liu M., Li S., Shi Q., Zhang S., Zhou Y., Su N.
<i>Frontiers in Endocrinology</i> 2021 12 Article Number 706914
Embase NURSING ▼ Abstract ▼ Index Terms > View Full Text Similar records > |

輸入關鍵字

『obesity』

『sodium glucose cotransporter 2 inhibitor』

『body weight loss』

『non-diabetic adult』

適當使用布林運算

『AND』、『OR』

不限語言類型地區

搜尋結果

	輸入P、I 及適當同義 詞	選擇SR、MA 文章	選擇5年內 文章	符合臨床問 題文章
	25	0	0	0
	33	19	2	1
	95	19	4	1
	1	0	0	0

選擇文獻

Efficacy and safety of GLP-1 receptor agonists versus SGLT-2 inhibitors in overweight/obese patients with or without diabetes mellitus: a systematic review and network meta-analysis

SR of RCTs

61 Trials

Up to 2022/1

P

X

I

C

X

O

X

Sodium-Glucose Co-Transporter-2 Inhibitors in Non-Diabetic Adults With Overweight or Obesity: A Systematic Review and Meta-Analysis

SR of RCTs

6 Trials

Up to 2021/2

P

I

C

O

Effect of Sodium-Glucose Cotransporter 2 Inhibitors on Weight Reduction in Overweight and Obese Populations without Diabetes: A Systematic Review and a Meta-Analysis

SR of RCTs

6 Trials

Up to 2021/5

P

I

C

O

X

選擇最佳文獻



► Front Endocrinol (Lausanne). 2021 Aug 16;12:706914. doi: [10.3389/fendo.2021.706914](https://doi.org/10.3389/fendo.2021.706914) [↗](#)

Sodium-Glucose Co-Transporter-2 Inhibitors in Non-Diabetic Adults With Overweight or Obesity: A Systematic Review and Meta-Analysis

[Hanrui Zheng](#)^{1,2,†}, [Min Liu](#)^{3,†}, [Sheyu Li](#)^{4,5}, [Qingyang Shi](#)⁵, [Shengzhao Zhang](#)⁶, [Yiling Zhou](#)⁴, [Na Su](#)^{1,2,*}

► Author information ► Article notes ► Copyright and License information

PMCID: PMC8415407 PMID: [34484120](https://pubmed.ncbi.nlm.nih.gov/34484120/)

- ✓ 最佳研究設計 SR of RCT
- ✓ 較新的發表年份
- ✓ 最符合臨床情境 PICO

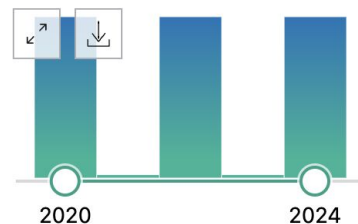
確認是否遺漏更新更好的 RCT

MY CUSTOM FILTERS 

3 results

<< < Page 1 of 1 > >>

RESULTS BY YEAR



PUBLICATION DATE

- ☐ 1 year
☒ 5 years
☐ 10 years
☐ Custom Range

TEXT AVAILABILITY

- ☐ Abstract
☐ Free full text
☒ Full text

ARTICLE ATTRIBUTE

- ☐ Associated data

ARTICLE TYPE

☒ Filters applied: in the last 5 years, Full text, Randomized Controlled Trial. [Clear all](#)
☐ Clinical value of adding Dapagliflozin in patients with nephrotic syndrome.

1 ElSharkawy M, Emara A, Ahmed MM, Ghonamy E, Teama NM.

Cite Int Urol Nephrol. 2024 Nov;56(11):3617-3625. doi: 10.1007/s11255-024-04099-1. Epub 2024 Jun 12.

Share PMID: 38862701 Clinical Trial.

BACKGROUND: Sodium-glucose cotransporter 2 (**SGLT2**) inhibitors in nephrotic patients on immunosuppression are underexplored. We evaluated dapagliflozin's impact in **non-diabetic** primary nephrotic syndrome. ...Furthermore, after 6 months, eGFR remained stable in ...

☐ Canagliflozin combined with metformin versus metformin monotherapy for endocrine and metabolic profiles in overweight and obese women with polycystic ovary syndrome: A single-center, open-labeled prospective randomized controlled trial.

2 Zhang J, Xing C, Cheng X, He B.

Front Endocrinol (Lausanne). 2022 Sep 6;13:1003238. doi: 10.3389/fendo.2022.1003238. eCollection 2022.

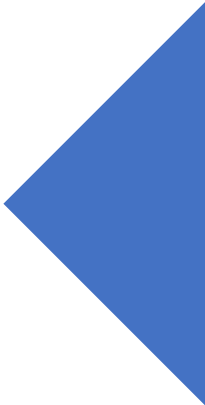
 PMID: 36147577 **Free PMC article.** Clinical Trial.

This randomized controlled trial compared the efficacy and safety of CANA and metformin (MET) combination therapy and MET monotherapy in endocrine and metabolic profiles of overweight and obese women with polycystic ovary syndrome (PCOS). METHODS: Fifty-one overweight or obese ...

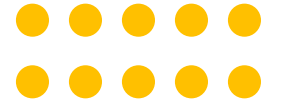
☐ Increase in endogenous glucose production with **SGLT2** inhibition is attenuated in individuals who underwent kidney transplantation and bilateral native nephrectomy.

3

Cite



5



Ask
Acquire
Appraisal
Apply
Audit

評讀工具



CASP Checklist: 10 questions to help you make sense of a **Systematic Review**

How to use this appraisal tool: Three broad issues need to be considered when appraising a systematic review study:

- ┆ Are the results of the study valid? (Section A)
- ┆ What are the results? (Section B)
- ┆ Will the results help locally? (Section C)

- ✓ 針對效度直觀分析
- ✓ 針對結果直觀分析
- ✓ 共10個問題探討各面向

此系統性回顧是否問了一個清楚、明確的臨床問題？

I

Background: Sodium-glucose-cotransporter-2 (SGLT2) inhibitors have proven to be effective in improving glycemic control and lowering body weight in patients with type 2 diabetes mellitus. However, the efficacy and safety on weight loss in adults with overweight or obesity but not diabetes remain unclear. In this article, we aimed to identify the efficacy and safety of SGLT2 inhibitors in adults with overweight or obesity but not diabetes in randomized controlled studies (RCTs).

C

O

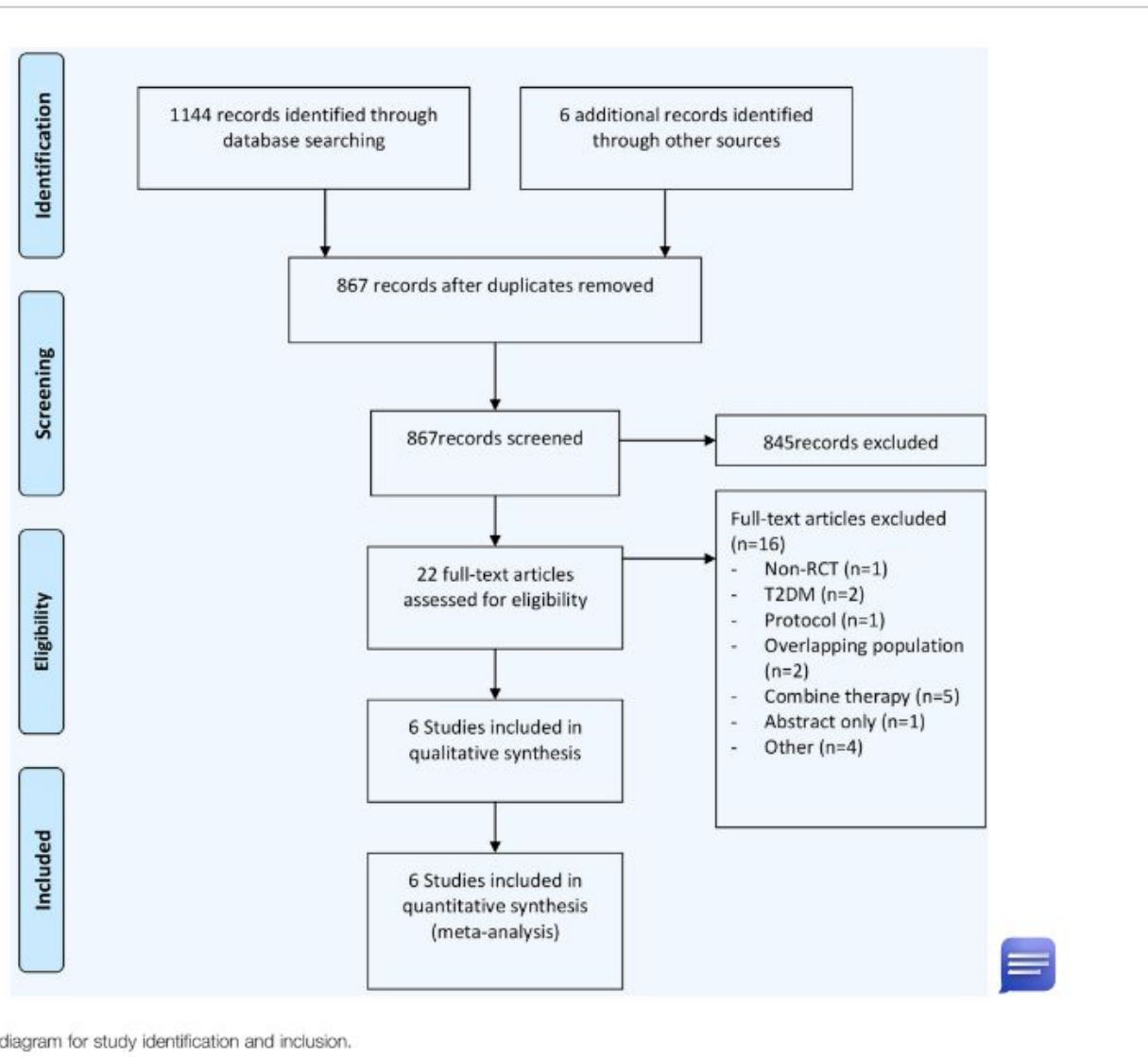
符合臨床問題

PICO清楚定義

P

☒ Yes ☐ No ☐ Can't tell

作者是否尋找適當研究型態的文獻？



收錄符合問題RCT

清楚定義納入排除條件

☒ Yes ☐ No ☐ Can't tell

你認為所有重要且相關的研究都被納入？

Literature Search

An extensive search for RCTs in Medline (Ovid SP), Embase (Ovid SP), Cochrane Central Register of Controlled Trials (Ovid SP), for studies published from the creation time of databases until February 20th, 2021, using the keywords: “Sodium-Glucose Transporter 2”, “sodium glucose cotransporter 2 inhibitors”, “canagliflozin”, “dapagliflozin”, “empagliflozin”, “ipragliflozin”, “tofogliflozin”, “luseogliflozin”, “sergliflozin”, “remogliflozin”, “ertugliflozin”, “sotagliflozin”, “overweight”, “obesity” and “obese” (**Supplementary Information 2**). ClinicalTrial.gov was screened for potentially eligible studies. The reference lists of relevant published researches investigating the use of SGLT2 inhibitors in non-diabetes with overweight or obesity were also reviewed for potentially relevant studies. We contacted authors by email if the full-text was not available or if the outcomes were not enough.

搜尋各種資料庫

Protocol說明納入排除

不限年代語言國家種族

與專家聯繫

包含已/未發表文獻

搜尋英文/中文文獻

從參考資料再搜尋

☒ Yes ☐ No ☐ Can't tell

你認為所有重要且相關的研究都被納入？

primary outcomes of interest, namely body weight and body mass index (BMI). Weight loss $\geq 5\%$, Waist circumference (WC), Hip circumference (HC), Waist/hip ratio (W/H) and adverse events were secondary outcomes. The adverse events included general adverse events and serious adverse events; (4) Study design: randomized controlled trials (RCTs) limited to the English language without restrictions of study size, follow-up length or publication year. No ethical approval and no contact with individual patients were required. The exclusion criteria were as follows: (1) including participants with pregnant; (2) animal experiments; (3) studies published in a language other than Chinese or English; (4) published as abstract only; (5) including patients with prediabetes.

搜尋各種資料庫

Protocol說明納入排除

不限年代語言國家種族

與專家聯繫

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搜尋英文/中文文獻

從參考資料再搜尋

☒ Yes ☐ No ☐ Can't tell

你認為所有重要且相關的研究都被納入？

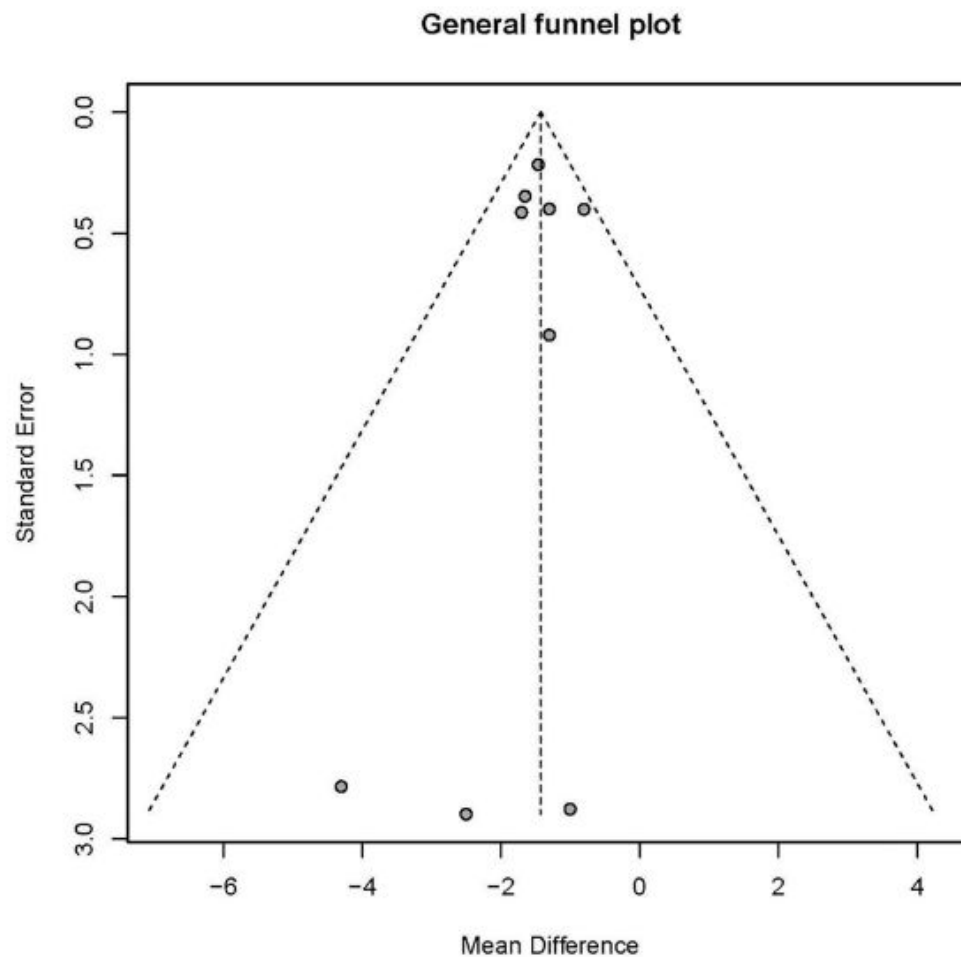


FIGURE 2 | General funnel plot analysis.

搜尋各種資料庫

Protocol說明納入排除

不限年代語言國家種族

與專家聯繫

包含已/未發表文獻

搜尋英文/中文文獻

從參考資料再搜尋

☒ Yes ☐ No ☐ Can't tell

作者是否評估所納入研究文獻的品質？

Quality Assessment

Two independent reviewers (HZ and ML) assessed the risk of bias of the included studies according to the Cochrane Handbook for Systematic Reviews of Interventions (version 5.1), and the disagreement were resolved by consulting the 3rd reviewer (NS). We assessed the quality of the included studies concerning 7 aspects including random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, and selective reporting and other bias (12). Each of them was judged as low, high or unclear risk. Grading of Recommendations Assessment, Development and Evaluation (GRADE) (13, 14) tool was used to assess the evidence quality and provide evidence for future guidelines, concerning inconsistency, indirectness, imprecision, and other bias.

2個作者獨立評讀

使用GRADE評讀工具

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？

Body weight

異質性：低度(I^2 : 0%)

Fixed effects model

次族群分析

敏感性測試

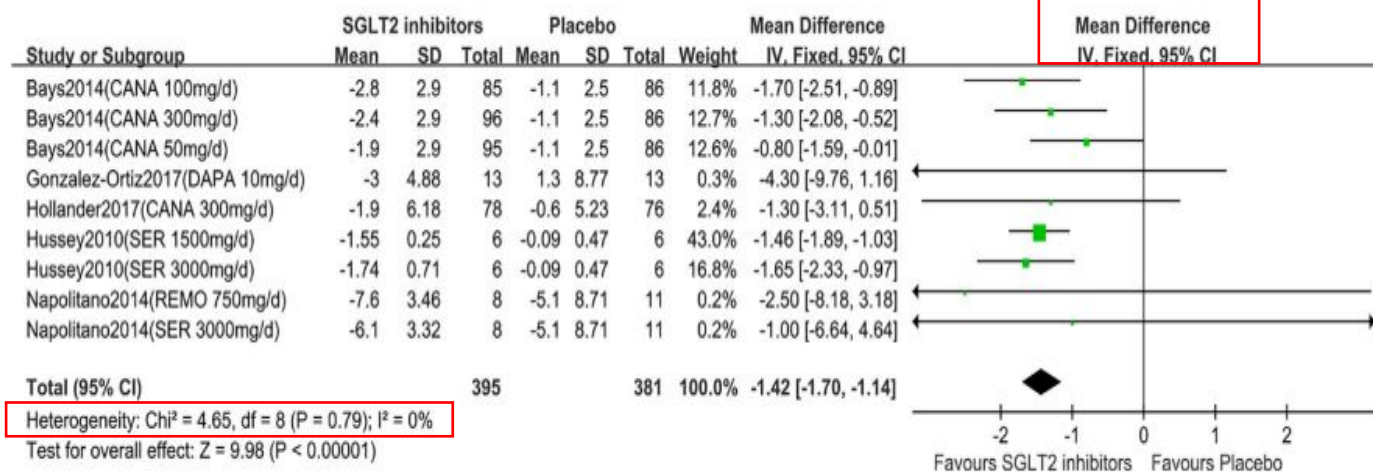


FIGURE 3 | Changes of body weight in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

Body weight

P值<0.05有顯著差異

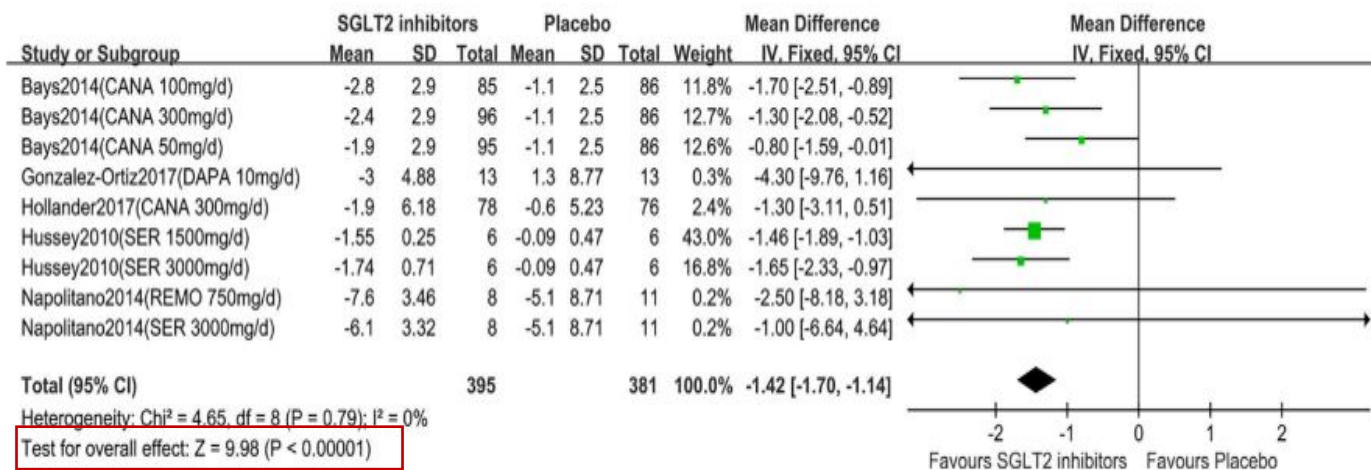


FIGURE 3 | Changes of body weight in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

Body weight

Sample size: 776

95%CI: -1.42 (-1.70, -1.14)
無碰到統計無效線

95%CI: -1.42 (-1.70, -1.14)
無碰到臨床無效線

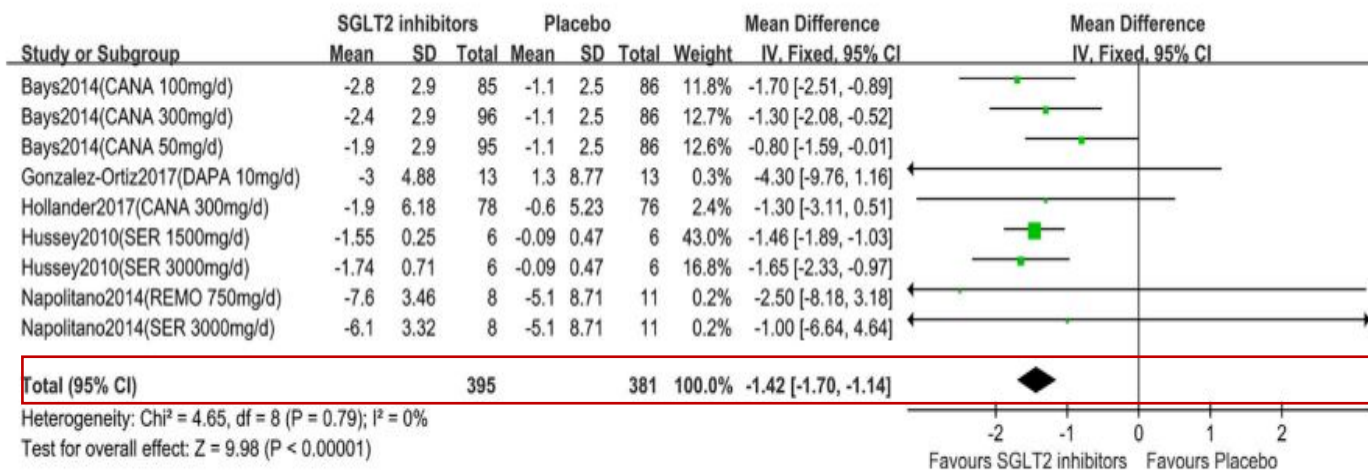


FIGURE 3 | Changes of body weight in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？

BMI

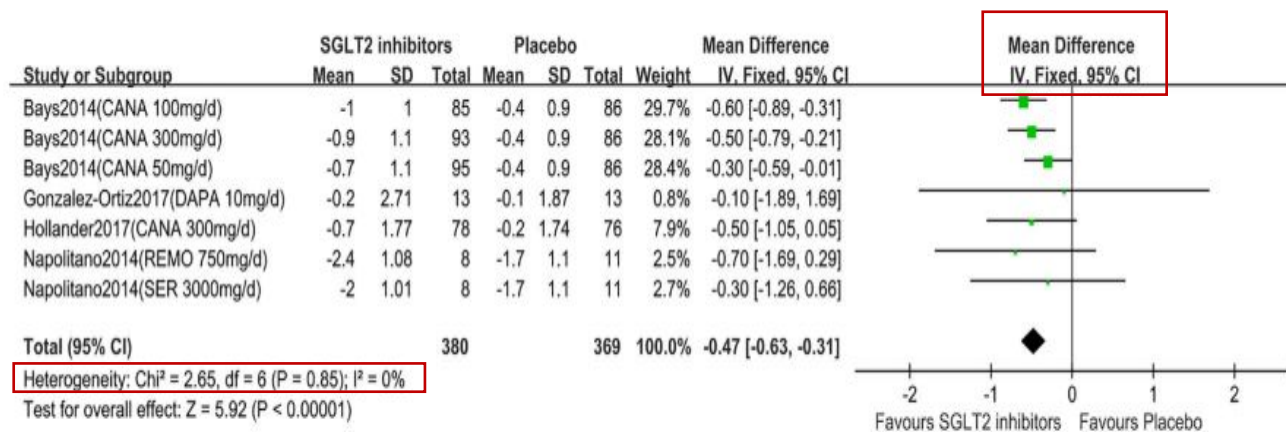


FIGURE 4 | Changes of BMI in patients receiving SGLT2 inhibitors versus placebo. BMI, body mass index; CI, confidence interval; IV, inverse variance; SD, standardized deviation.

異質性：低度($I^2:0\%$)

Fixed effects model

次族群分析

敏感性測試

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

BMI

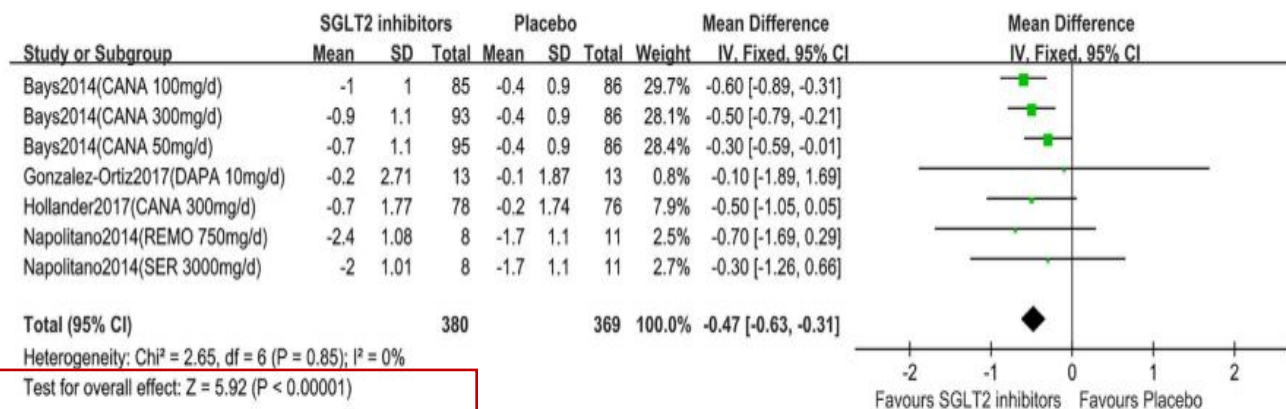


FIGURE 4 | Changes of BMI in patients receiving SGLT2 inhibitors versus placebo. BMI, body mass index; CI, confidence interval; IV, inverse variance; SD, standardized deviation.

P值<0.05有顯著差異

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

BMI

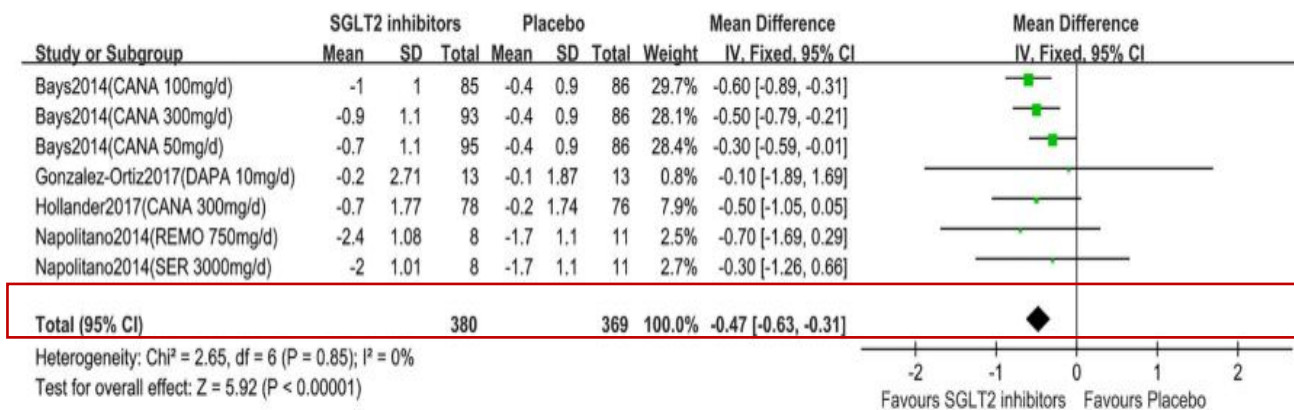


FIGURE 4 | Changes of BMI in patients receiving SGLT2 inhibitors versus placebo. BMI, body mass index; CI, confidence interval; IV, inverse variance; SD, standardized deviation.

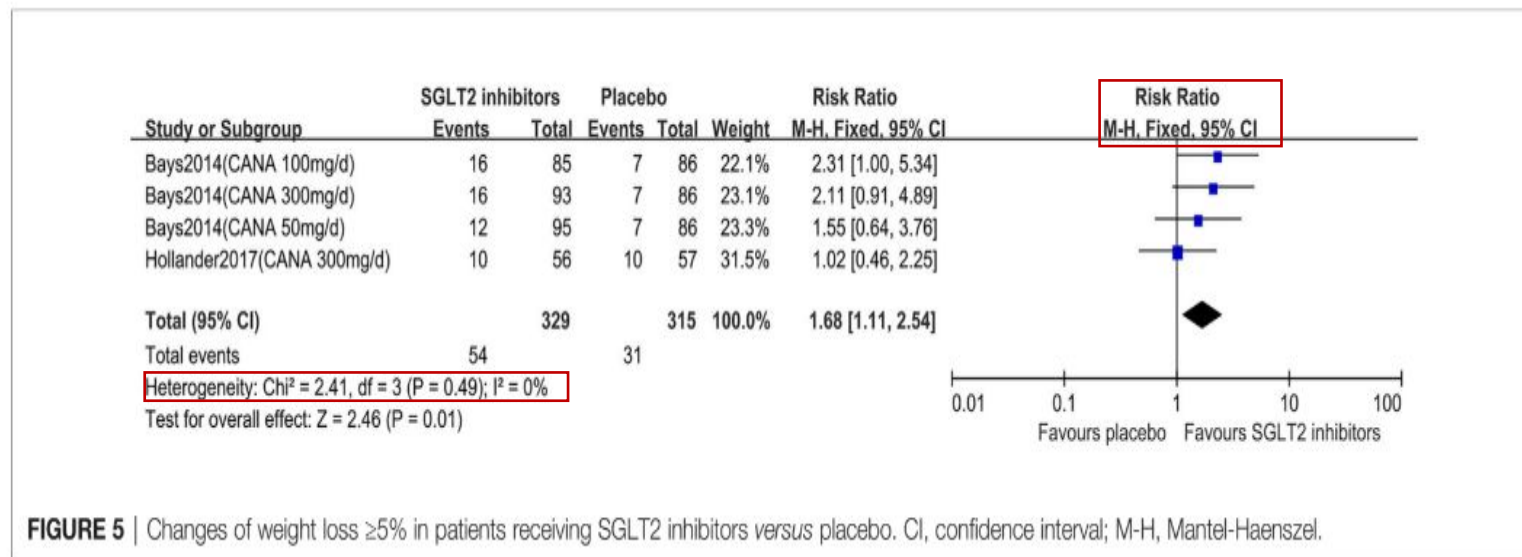
Sample size: 749

95%CI: -0.47(-0.63, -0.31)
無碰到統計無效線

95%CI: -0.47(-0.63, -0.31)
無碰到臨床無效線

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？



Weight loss $\geq 5\%$

異質性：低度($I^2:0\%$)

Fixed effects model

次族群分析

敏感性測試

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

Weight loss $\geq 5\%$

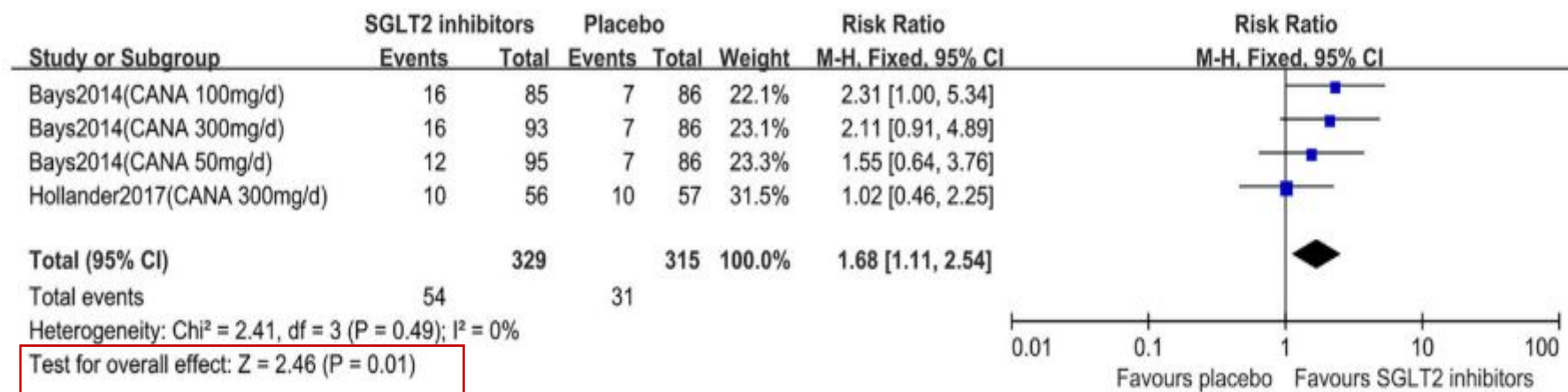


FIGURE 5 | Changes of weight loss $\geq 5\%$ in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; M-H, Mantel-Haenszel.

P值 <0.05 有顯著差異

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

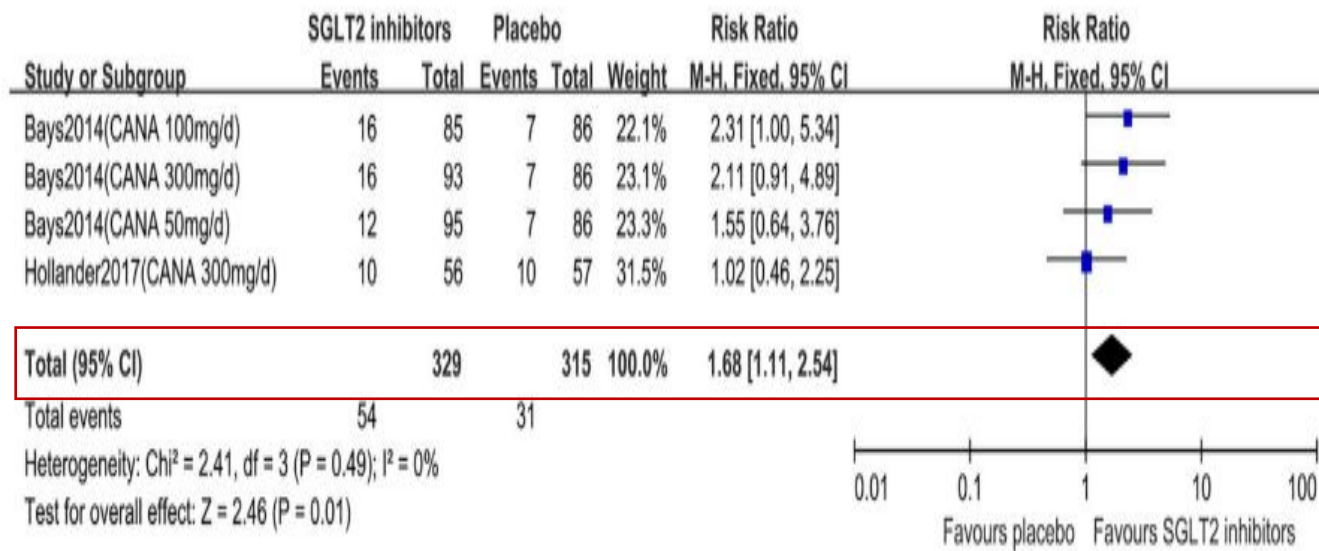


FIGURE 5 | Changes of weight loss $\geq 5\%$ in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; M-H, Mantel-Haenszel.

Weight loss $\geq 5\%$

Sample size : 644

95%CI: 1.68(1.11, 2.54)無
碰到統計無效線

95%CI: 1.68(1.11, 2.54)有
碰到臨床無效線

NNT : 16

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？

腰圍

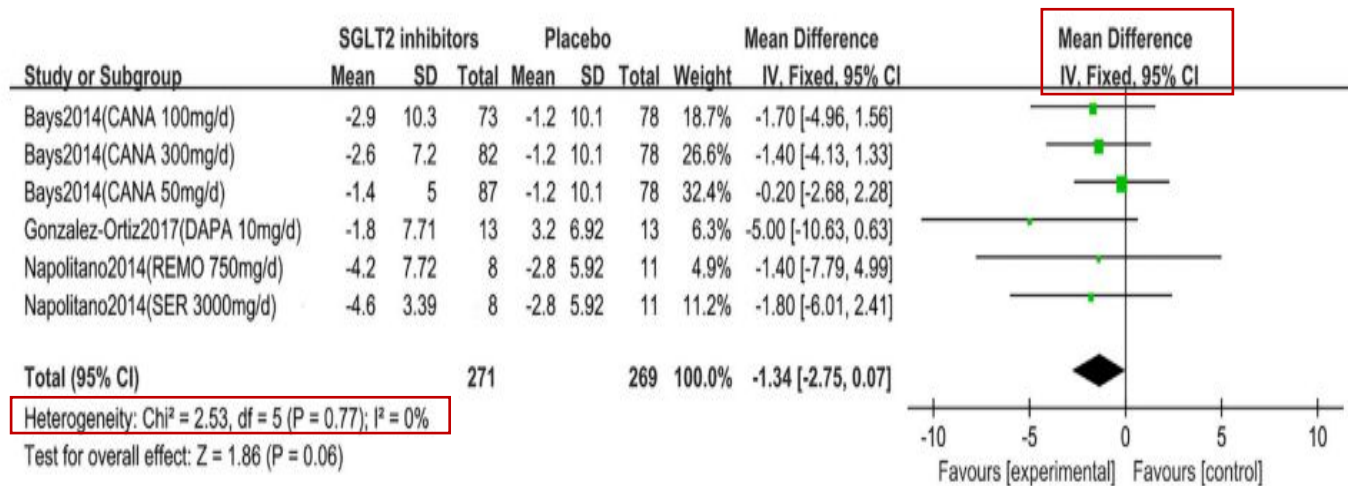


FIGURE 6 | Changes of waist circumference in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

異質性：低度($I^2:0\%$)

Fixed effects model

次族群分析

敏感性測試

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

腰圍

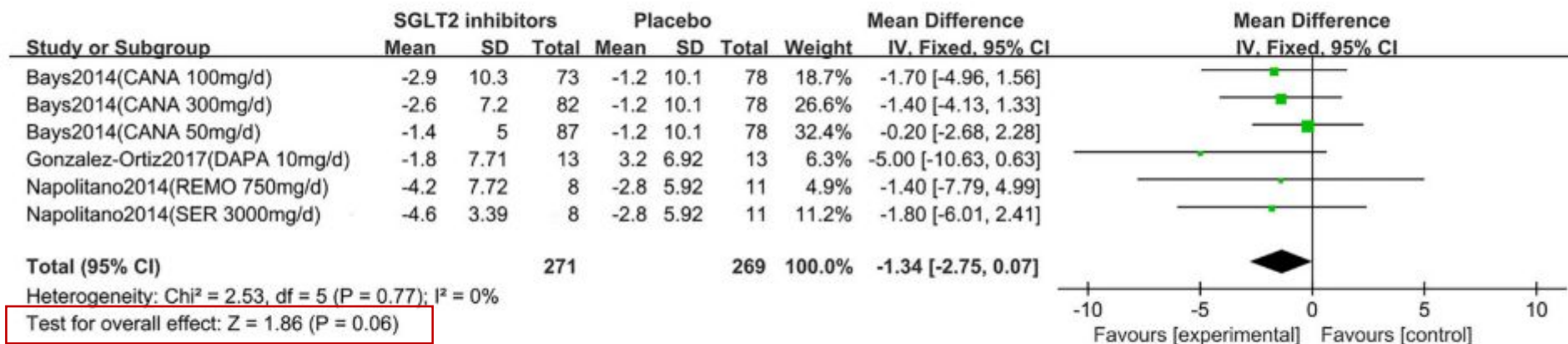


FIGURE 6 | Changes of waist circumference in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

P值>0.05無顯著差異

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

腰圍

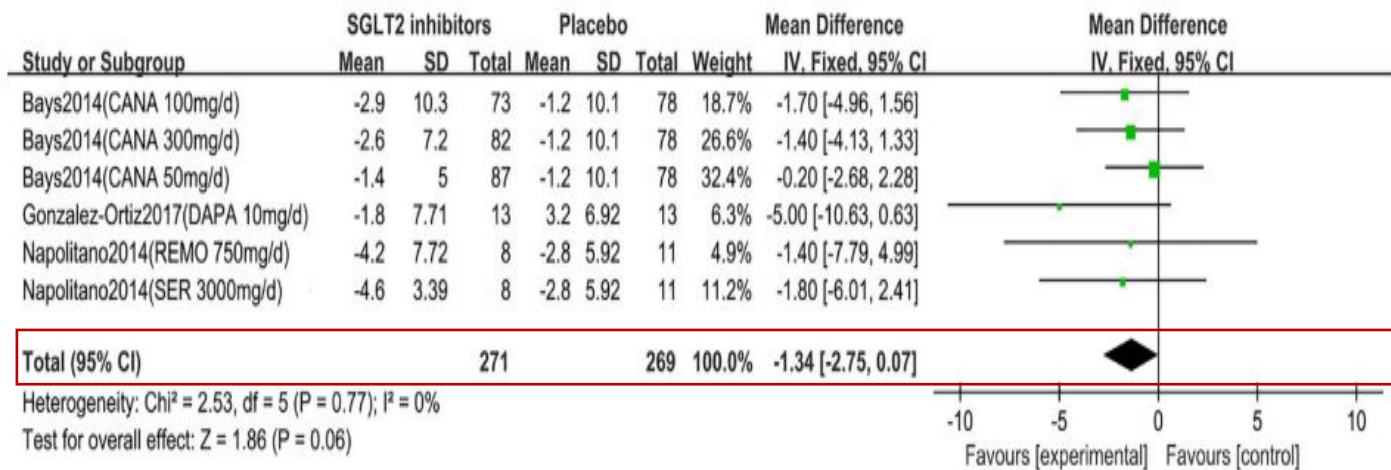


FIGURE 6 | Changes of waist circumference in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

Sample size: 540

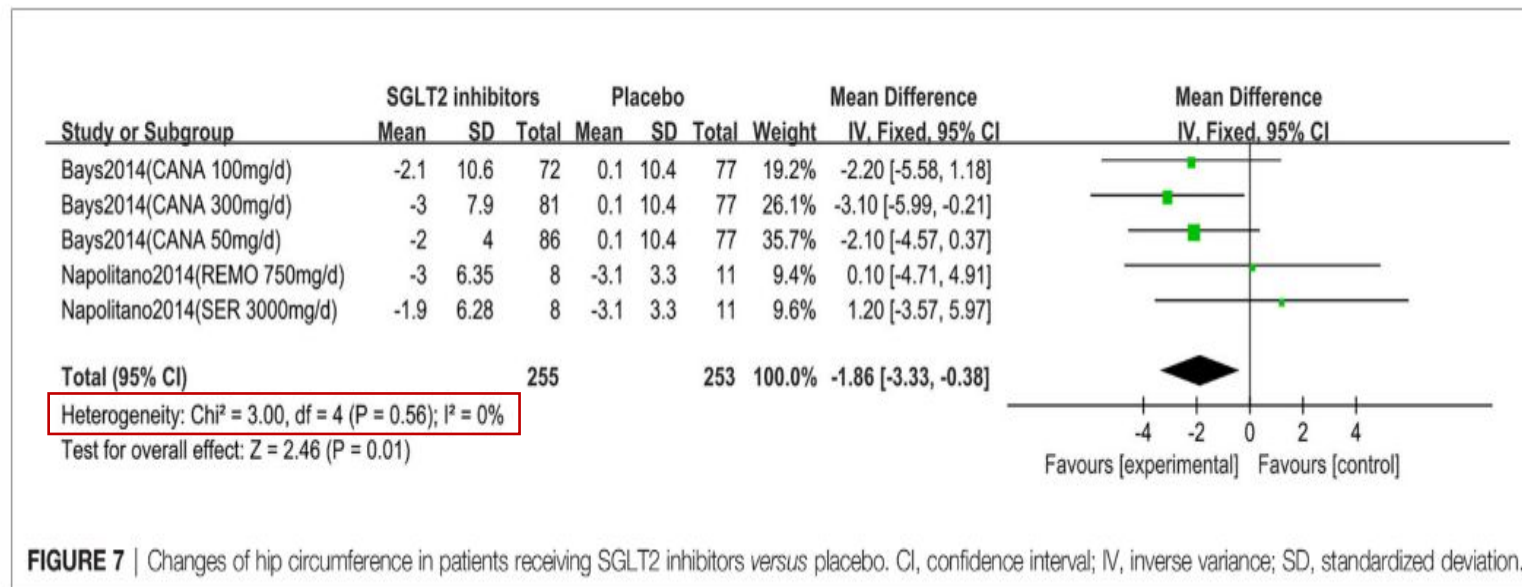
95%CI: -1.34(-2.75, 0.07)有碰到統計無效線

95%CI: -1.34(-2.75, 0.07)有碰到臨床無效線

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？

臀圍



異質性：低度($I^2:0\%$)

Fixed-effects model

次族群分析

敏感性測試

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

臀圍

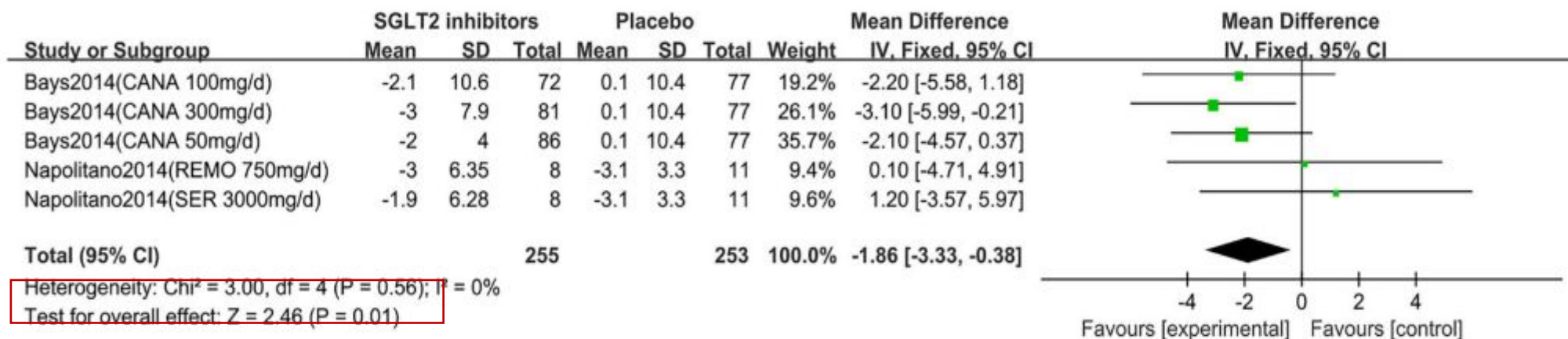


FIGURE 7 | Changes of hip circumference in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

P值<0.05有顯著差異

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

臀圍

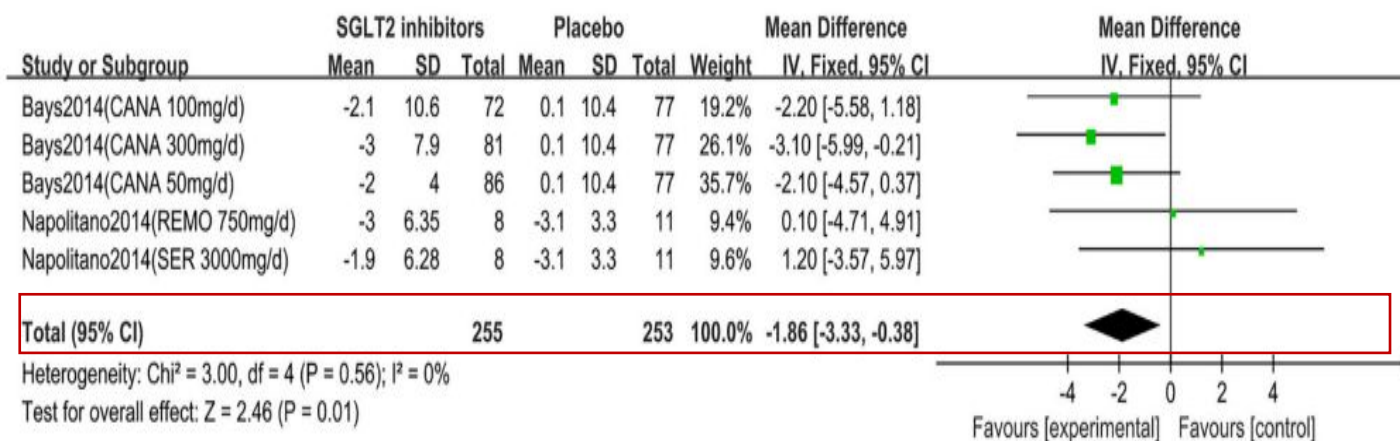


FIGURE 7 | Changes of hip circumference in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

Sample size: 508

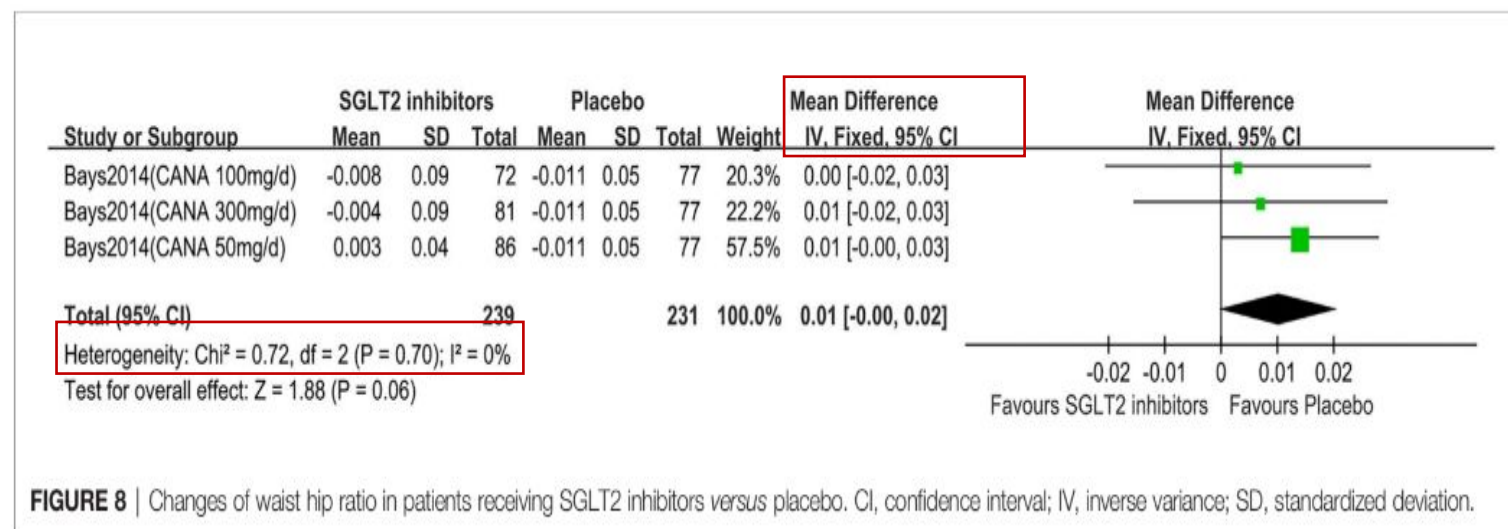
95%CI: -1.85(-3.33, -0.38)
無碰到統計無效線

95%CI: -1.85(-3.33, -0.38)
有碰到臨床無效線

☒ Yes ☐ No ☐ Can't tell

作者將研究結果進行合併，這樣的合併是否合理？

腰臀比



異質性: 低度($I^2: 0\%$)

Fixed-effects model

次族群分析

敏感性測試

☒ Yes ☐ No ☐ Can't tell

這篇系統性文獻回顧的整體結果為何？

腰臀比

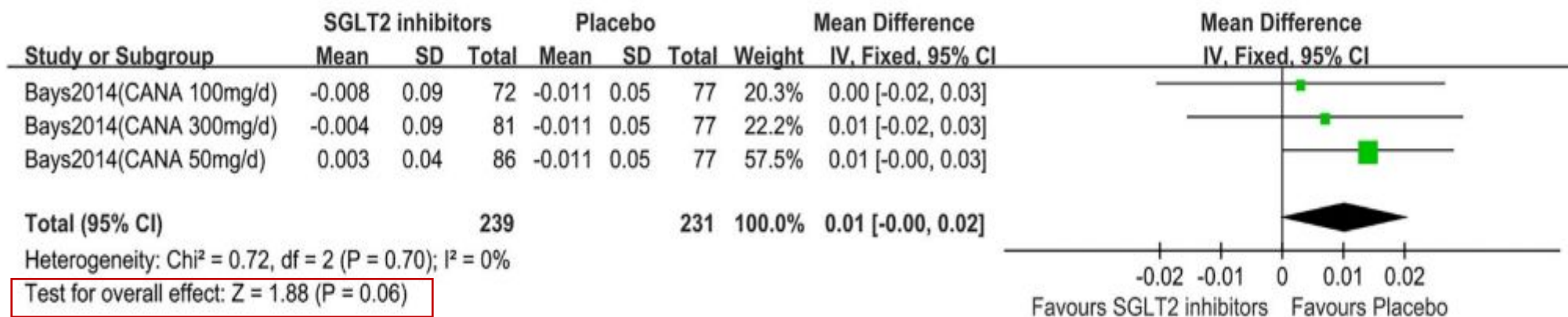


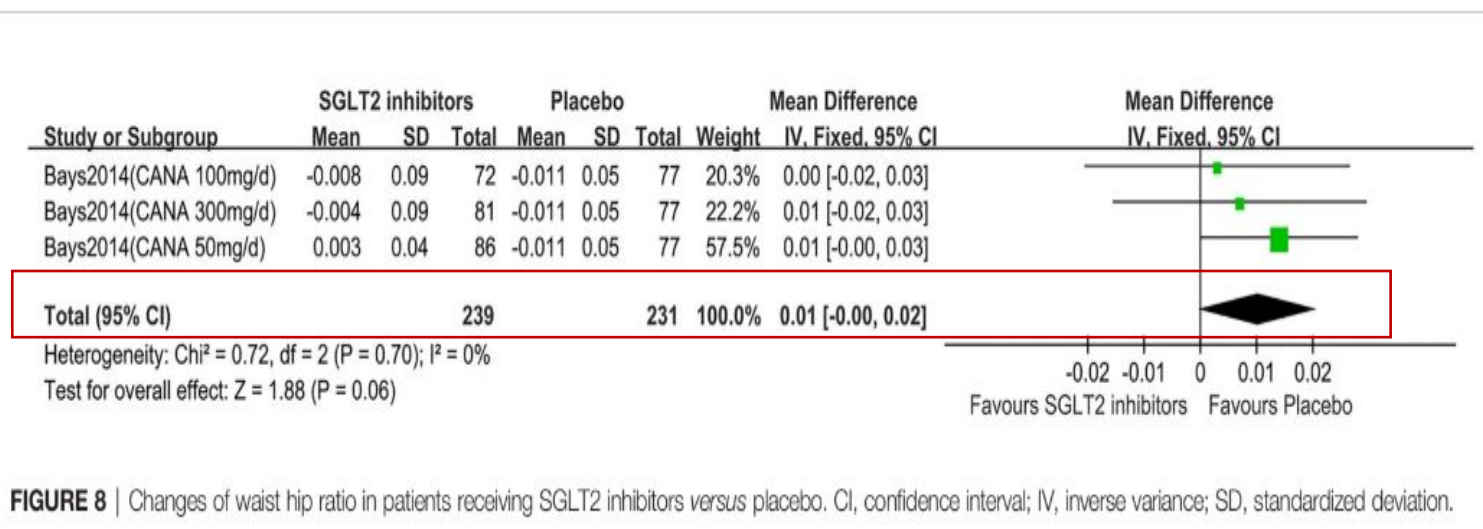
FIGURE 8 | Changes of waist hip ratio in patients receiving SGLT2 inhibitors versus placebo. CI, confidence interval; IV, inverse variance; SD, standardized deviation.

P值>0.05無顯著差異

☒ Yes ☐ No ☐ Can't tell

結果精準嗎？

腰臀比



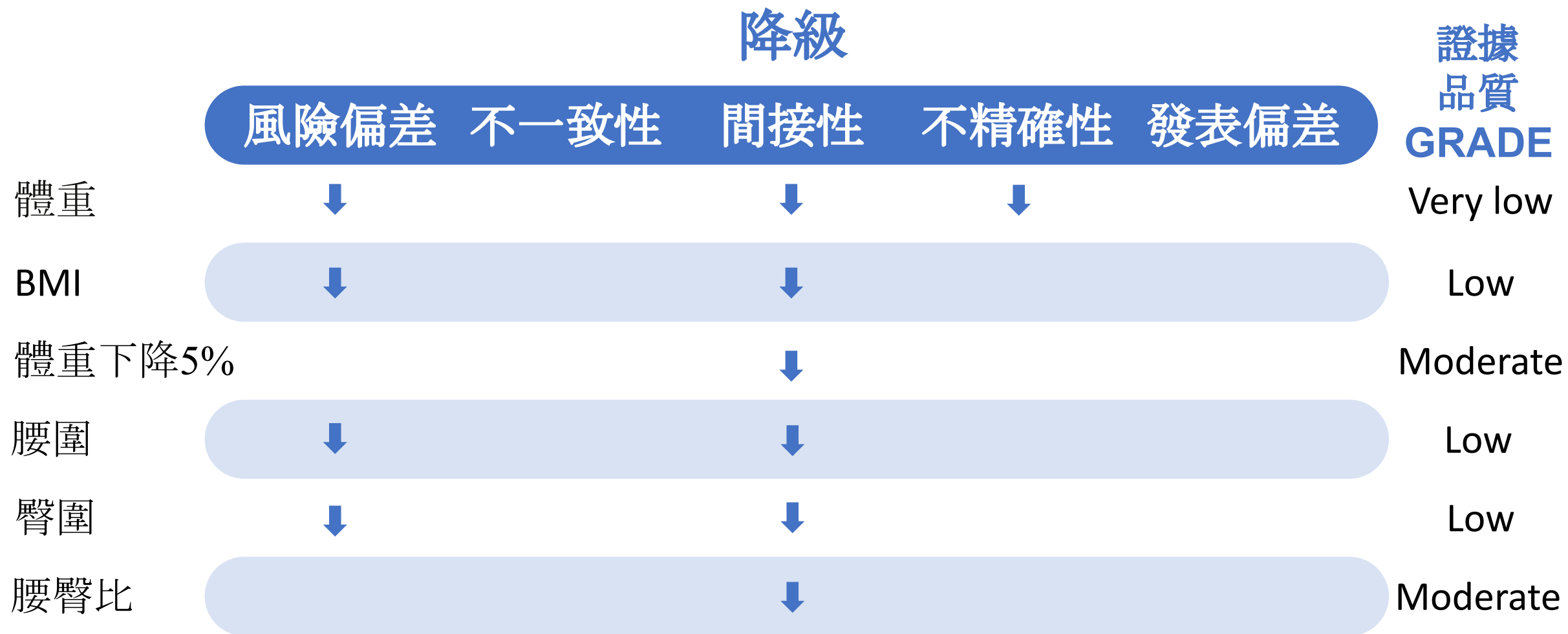
Sample size: 470

95%CI: 0.01(-0.00, 0.03)有
碰到統計無效線

95%CI: 0.01(-0.00, 0.03)有
碰到臨床無效線

☒ Yes ☐ No ☐ Can't tell

評定個別研究結果的證據品質：GRADE



此研究結果是否可應用到當地的族群？

	評讀文獻	臨床情境
性別	Female 較多	Male
共病	無糖尿病	無糖尿病
種族	歐美較多	台灣
年齡	18-60 years old	30 years old
疾病	肥胖、超重	肥胖、脂肪肝
介入	SGLT2 inhibitor	SGLT2 inhibitor

此研究結果是否可應用到當地的族群？

TABLE 1 | Baseline characteristics of each included study (n=6).

Author (year)	I	C	Number		Male (%)		Mean age (years)		Mean body weight (kg)		Mean BMI (kg/m ²)		Patients	Country	Follow-up (weeks)	Outcomes	Funding
			T	C	T	C	T	C	T	C	T	C					
Færch2021 (15)	DAPA 10mg qd	PBO	30	30	43	40	61.4 ± 8.5	57.2 ± 9.9	M:103.7 ± 17.6 F:82.5 ± 13.7	M:99.0 ± 15.1 F:92.1 ± 25.3	M:31.6 ± 3.8 F:30.4 ± 5.1	M:30.4 ± 3.2 F:34.0 ± 8.4	Overweight/ Obese with PreDM	Denmark	13	BW,BMI,WC,W/H	Novo Nordisk Foundation,AstraZeneca AB
Hollander2017 (16)	CANA 300mg qd	PBO	84	82	19	18.3	45.2 ± 11.0	44.8 ± 11.1	103.3 ± 19.1	104.3 ± 18.2	37.3 ± 4.7	38.0 ± 5.2	Overweight/ Obese Without DM	US	26	BW,BW(loss) ≥5%, BMI,WC	Janssen Research & Development, LLC
Gonzalez-Ortiz2017 (17)	DAPA 10mg qd	PBO	13	13	15.4	15.4	46.5 ± 5.2	45.0 ± 6.8	68.0 ± 4.6	73.0 ± 8.2	27.3 ± 2.0	27.3 ± 1.6	Overweight Without DM	NR	12	BW,BMI,WC	
Bays2014 (18)	CANA 50mg qd	PBO	98	89	12	16	44.9 ± 11.8	45.1 ± 11.9	98.1 ± 16.0	102.2 ± 19.9	36.6 ± 5.3	36.6 ± 5.5	Overweight/ Obese Without DM	US and Puerto Rico	12	BW,BW(loss) ≥5%, BMI, WC,HC,W/H	Janssen Global Services, LLC
	CANA 100mg qd	PBO	93	89	12	16	45.8 ± 11.0	45.1 ± 11.9	105.0 ± 16.6	102.2 ± 19.9	37.9 ± 5.1	36.6 ± 5.5					
	CANA 300mg qd	PBO	96	89	10	16	43.5 ± 11.0	45.1 ± 11.9	100.2 ± 18.0	102.2 ± 19.9	36.9 ± 5.3	36.6 ± 5.5					
Napolitano2014 (19)	REMO 250mg tid	PBO	9	12		73	42 ± 13.0		101 ± 14.6		33 ± 2.4		Healthy obese	UK	8	BW,BMI,WC,HC	Glaxo Smith Kline
	SER 1000mg tid	PBO	9	12													
Hussey2010 (20)	SER 500mg tid	PBO	6	6		44.4	18-55		NR		25-35		Healthy Overweight/ Obese	US	2	BW	Glaxo Smith Kline
	SER 1000mg tid	PBO	6	6													

DM, diabetes mellitus; NA, not applicable; I, Intervention C, Control; DAPA, dapagliflozin; CANA, canagliflozin; REMO, remogliflozi; SER, sergliflozin; PBO, placebo; BMI, body mass index; BW, body weight; WC, Waist circumference; HC, Hip circumference; W/H, Waist/hip ratio.

文獻與情境類似

較少亞洲國家
種族bias: moderate

可應用到當地族群

☒ Yes ☐ No ☐ Can't tell

是否所有重要的臨床結果都被考量到？

TABLE 1 | Baseline characteristics of each included study (n=6).

Author (year)	I	C	Number		Male (%)		Mean age (years)		Mean body weight (kg)		Mean BMI (kg/m ²)		Patients	Country	Follow-up (weeks)	Outcomes	Funding
			T	C	T	C	T	C	T	C	T	C					
Færch2021 (15)	DAPA 10mg qd	PBO	30	30	43	40	61.4 ± 8.5	57.2 ± 9.9	M:103.7 ± 17.6 F:82.5 ± 13.7	M:99.0 ± 15.1 F:92.1 ± 25.3	M:31.6 ± 3.8 F:30.4 ± 5.1	M:30.4 ± 3.2 F:34.0 ± 8.4	Overweight/ Obese with PreDM	Denmark	13	BW,BMI,WC,W/H	Novo Nordisk Foundation,AstraZeneca AB
Hollander2017 (16)	CANA 300mg qd	PBO	84	82	19	18.3	45.2 ± 11.0	44.8 ± 11.1	103.3 ± 19.1	104.3 ± 18.2	37.3 ± 4.7	38.0 ± 5.2	Overweight/ Obese Without DM	US	26	BW,BW(loss) ≥5%, BMI,WC	Janssen Research & Development, LLC
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Bays2014 (18)	CANA 50mg qd	PBO	98	89	12	16	44.9 ± 11.8	45.1 ± 11.9	98.1 ± 16.0	102.2 ± 19.9	36.6 ± 5.3	36.6 ± 5.5	Overweight/ Obese Without DM	US and Puerto Rico	12	BW,BW(loss) ≥5%, BMI, WC,HC,W/H	Janssen Global Services, LLC
	CANA 100mg qd	PBO	93	89	12	16	45.8 ± 11.0	45.1 ± 11.9	105.0 ± 16.6	102.2 ± 19.9	37.9 ± 5.1	36.6 ± 5.5					
	CANA 300mg qd	PBO	96	89	10	16	43.5 ± 11.0	45.1 ± 11.9	100.2 ± 18.0	102.2 ± 19.9	36.9 ± 5.3	36.6 ± 5.5					
Napolitano2014 (19)	REMO 250mg tid	PBO	9	12	73		42 ± 13.0		101 ± 14.6		33 ± 2.4		Healthy obese	UK	8	BW,BMI,WC,HC	Glaxo Smith Kline
	SER 1000mg tid	PBO	9	12													
Hussey2010 (20)	SER 500mg tid	PBO	6	6	44.4		18-55		NR		25-35		Healthy Overweight/ Obese	US	2	BW	Glaxo Smith Kline
	SER 1000mg tid	PBO	6	6													

DM, diabetes mellitus; NA, not applicable; I, Intervention C, Control; DAPA, dapagliflozin; CANA, canagliflozin; REMO, remogliflozi; SER, sergliflozin; PBO, placebo; BMI, body mass index; BW, body weight; WC, Waist circumference; HC, Hip circumference; W/H, Waist/hip ratio.

有考慮到各種臨床結果

☒ Yes ☐ No ☐ Can't tell

是否所有重要的臨床結果都被考量到？

有考慮到各種臨床結果

TABLE 3 | Adverse events reported in all included studies.

Adverse events	Numbers (Studies)	SGLT2 inhibitors		Control		Relative risk (95% CI)
		Events	Total	Events	Total	
AEs leading to discontinuation	4	22	401	9	385	2.25 (1.08 to 4.68)
hypoglycemia	1	3	287	6	267	0.49 (0.13 to 1.83)
Urinary tract infection	5	31	420	20	398	1.45 (0.83 to 2.54)
Genital mycotic infection	4	51	393	9	374	5.36 (2.72 to 10.59)
Vulvovaginal mycotic infection	2	31	371	3	349	9.14 (3.00 to 27.78)
Nausea	2	23	371	6	349	3.54 (1.47 to 8.53)
Sinusitis	2	11	371	3	349	2.67 (0.90 to 7.95)

CI, confidence interval.

☒ Yes ☐ No ☐ Can't tell

付出傷害和花費換得介入措施的益處是否 值得？

介入措施

針對非糖尿病，超重或肥胖患者，使用SGLT2 inhibitor

花費

健保只給付糖尿病患者
花費約50元



優點

有減輕體重、BMI的效果



副作用

可能有低血糖、泌尿道感染、
噁心等副作用



付出傷害和花費換得介入措施的益處是否 值得？

項目	有形支出	無形支出	預估總價
看診費用	一次450元	看診心理負擔	一個月需4000元
輾轉車費	一趟250元	來回舟車勞頓	一個月需1000元
請假成本	時薪190元	減少休息時間	一個月需3000元

其他選擇	優點	缺點	證據等級
民俗療法	清熱消腫排膿	效果因人而異	Level 3
衛生保健	便宜簡單上手	治療效果有限	Level 3
飲食運動	調理生理功能	需要持之以恆	Level 3

☒ Yes ☐ No ☐ Can't tell

AI輔助

成本類型	介入方式 (SGLT2 抑制劑)	對照組方式 (生活方式改變)
直接成本	1. 藥物費用：約 400~600 USD/月 (國際市場價)	1. 飲食顧問費：約 50~100 USD/次
	2. 醫療費用：定期檢查 (如血檢、肝功能檢測)，約 100~200 USD/次	2. 健身房會員費：約 30~50 USD/月
		3. 健康食品額外支出：約 100~200 USD/月
間接成本	1. 醫療訪問時間損耗：每月 1~2 小時	1. 運動時間損耗：每週 3~5 小時
	2. 交通費用：約 10~50 USD/月	2. 調整飲食規劃的時間損耗：約每週 2 小時
無形成本	1. 副作用壓力：輕微副作用 (如泌尿感染)，可能導致心理不適	1. 自律壓力：飲食限制或規律運動的心理負擔
	2. 長期依從壓力：需定期服藥	2. 持續性壓力：無法達到減重目標的挫敗感
總成本	約 600~800 USD/月 (包括所有直接、間接及無形成本)	約 150~300 USD/月 (以最低限度的方式計算)

評定證據等級

V	清楚明確的臨床問題
	收納適當研究類型
	所有研究都被納入
	研究文獻的品質
	結果合併的合理性
I	整體結果
	精準性
P	臨床應用
	成本效益

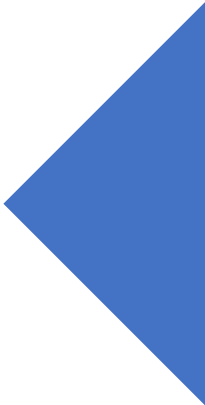
研究品質差



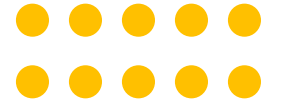
考慮降階
Level 2

研究不精準

	CASP question	Y/N
1	此系統性回顧是否問了一個清楚、明確的臨床問題？	Y
2	作者是否尋找適當研究型態的文獻？	Y
3	你認為所有重要且相關的研究都被納入？	Y
4	作者是否評估所納入研究文獻的品質？	Y
5	作者將研究結果進行合併，這樣的合併是否合理？	Y
6	這篇系統性文獻回顧的整體結果為何？	Y
7	結果精準嗎？	N
8	此研究結果是否可應用到當地的族群？	Y
9	是否所有重要的臨床結果都被考量到？	Y
10	付出傷害和花費換得介入措施的益處是否值得？	Y



5



Ask
Acquire
Appraisal
Apply
Audit

有形無形支出及隱藏成本



	SGLT2 inhibitor	飲食運動
醫療成本	一個月藥費約兩千 第一個月門診追蹤約兩千	門診追蹤 保健食品
生產力損失	請假成本 照護成本	飲食運動費用
社會成本	影響病人照護 同事關係	影響病人照護 同事關係
心靈成本	生活品質 副作用	自律壓力 心理壓力
總成本	一個月約一萬元	一個月約兩千元

成本效益比

CER: Control event rate
RR: Relative risk

NNT

$$= \frac{1}{\text{CER} \times (1 - \text{RR})} = \frac{1}{9.8\% \times 0.68} = 16$$

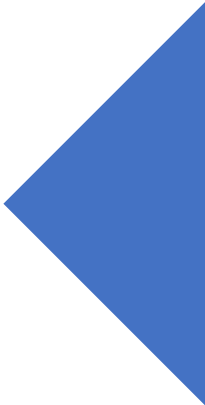
需要治療 16 名患者，才能使 1 名患者 達到體重下降 $\geq 5\%$ 的效果

ICER

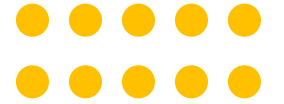
$$= \frac{\Delta \text{Cost}}{\Delta \text{Effectiveness}} = 190\text{k/QALY}$$

COPE

$$= \text{NNT} \times \text{時間} \times \text{治療費用} = 16 \times 3\text{m} \times 4000/ = 192\text{k}$$



5



Ask
Acquire
Appraisal
Apply
Audit

4E Model 從證據到應用

實證醫學 Evidence

證據&建議等級: level 2
GRADE: moderate ~ very low

患者期待 Expectation

小莊希望達到減重效果
不常運動

專家意見 Expert

建議對於肥胖過重非糖尿病的患者, 使用SGLT2 inhibitor可達到減重效果

社經考量 Environment

非健保給付條件
要自費用藥和門診追蹤

Evidence to Decision (EtD) framework

這個問題重要嗎	重要
整體證據品質如何	證據品質中～低
價值觀與重要預後確定性	可能有不確定性
效果是否足夠大	效果不夠大
副作用是否足夠小	副作用可能小
效果是否超越副作用	效果可能大於副作用
單位好處所需花費小	單位好處所需花費可能小
是否可被使用者接受	接受度高
是否可被使用者執行	執行度高

Moberg, J., Oxman, A.D., Rosenbaum, S. et al. The GRADE Evidence to Decision (EtD) framework for health system and public health decisions. *Health Res Policy Sys* 16, 45 (2018)

共享決策

文獻利 > 弊

李宜恭醫師《醫策會SDM上課教材》

是

否

是

我們建議應該做
並解釋行動方案

我們建議考慮做
提供選項輔助決策

否

我們建議考慮做
提供選項輔助決策

我們建議考慮做
提供選項輔助決策

病人
偏好

回答病人問題—以去學術化術語方式



小莊先生您好，經過我們團隊縝密的實證搜尋後，目前現有最佳證據是由**系統性回顧文獻**支持，對於**肥胖過重非糖尿病**的患者，使用**SGLT2 inhibitor**可達到**減重**效果，用藥和門診一個月約**花費四千元**，血脂異常和脂肪肝是**高危險族群**，可以同時**搭配飲食控制和養成運動習慣**。

謝謝聆聽



AI輔助

我想要您協助評估文章的下面這個題目：

###

作者是否尋找適當研究型態的文獻？

其中需要評估

Q1：收錄符合問題RCT（Randomized Controlled Trial），若有則這題為YES

Q2：清楚定義納入條件，若有則這題為YES

Q3：清楚定義排除條件，若有則這題為YES

各項小細項問題定義清楚

###

###

顯示方法為

Q1 :yes OR no {文獻參考的原始原文}

Q2 :yes OR no {文獻參考的原始原文}

Q3 :yes OR no {文獻參考的原始原文}

請將結果以表格呈現

以下是針對 **Frontiers** 文獻的「作者是否尋找適當研究型態的文獻」評估結果：

問題	回答	文獻參考的原始原文
Q1	YES	"We included studies meeting the following criteria: (1) Participants: adults with overweight or obesity but not diabetes undergoing SGLT2 inhibitors based on the study definition; (4) Study design: randomized controlled trials (RCTs)..." (Sodium-Glucose Co-Trans...)
Q2	YES	"We included studies meeting the following criteria: ... (2) Interventions/comparisons: using SGLT2 inhibitors as a monotherapy and placebo as the control. All included participants received standardized advice on diet and physical activity throughout the trial; (3) Outcomes: reporting one of the primary outcomes of interest, namely body weight and body mass index (BMI)." (Sodium-Glucose Co-Trans...)
Q3	YES	"The exclusion criteria were as follows: (1) including participants with pregnant; (2) animal experiments; (3) studies published in a language other than Chinese or English; (4) published as abstract only; (5) including patients with prediabetes." (Sodium-Glucose Co-Trans...)

AI輔助

我想要您協助評估文章的下面這個題目：

###

Do you think the important, relevant studies were included?
作者有沒有可能遺漏掉重要、相關的研究？

其中需要評估

Q1：搜尋三個以上資料庫，實證資料庫包含Cochrane Library、EMBASE、MEDLINE、pubmed等，若三種以上則這題為Yes

Q2：關鍵字明確，包含MESH TERM與其他同義字詞，若有則這題為YES

Q3：搜尋是否限制使用英語文獻，有限制則是YES

Q4：搜尋reference list、會議壁報論文等，若有則這題為YES

Q5：與專家聯繫或是與收入文獻的原作者聯繫等，若有則這題為YES
各項小細項問題定義清楚

###

###

顯示方法為

Q1 :yes OR no {文獻參考的原始原文}

Q2 :yes OR no {文獻參考的原始原文}

Q3 :yes OR no {文獻參考的原始原文}

Q4 :yes OR no {文獻參考的原始原文}

Q5 :yes OR no {文獻參考的原始原文}



請將結果以表格呈現

以下是針對 **Frontiers** 文獻的「作者是否可能遺漏重要、相關的研究」的評估結果：

問題	回答	文獻參考的原始原文
Q1	YES	"We searched for RCTs concerning SGLT2 inhibitors in adults with overweight or obesity but not diabetes in Medline (Ovid SP), Embase (Ovid SP), Cochrane Central Register of Controlled Trials (Ovid SP), and ClinicalTrials.gov up to February 2021." (Sodium-Glucose Co-Trans...)
Q2	YES	"...using the keywords: 'Sodium-Glucose Transporter 2', 'sodium glucose cotransporter 2 inhibitors', 'canagliflozin', 'dapagliflozin', 'empagliflozin', 'ipragliflozin', 'tofogliflozin', 'luseogliflozin', 'sergliflozin', 'remogliflozin', 'ertugliflozin', 'sotagliflozin', 'overweight', 'obesity' and 'obese'!" (Sodium-Glucose Co-Trans...)
Q3	YES	"We included studies meeting the following criteria... limited to the English language without restrictions of study size, follow-up length or publication year." (Sodium-Glucose Co-Trans...)
Q4	YES	"The reference lists of relevant published researches investigating the use of SGLT2 inhibitors in non-diabetes with overweight or obesity were also reviewed for potentially relevant studies." (Sodium-Glucose Co-Trans...)
Q5	YES	"We contacted authors by email if the full-text was not available or if the outcomes were not enough." (Sodium-Glucose Co-Trans...)

AI輔助

我想要您協助評估文章的下面這個題目：

###

作者是否評估所納入研究文獻的品質？

其中需要評估

Q1：兩個以上author或reviewer獨立評讀，若有則這題為YES

Q2：使用適當的工具來評讀風險偏差或證據等級，若有則這題為YES

各項小細項問題定義清楚

###

###

顯示方法為

Q1 :yes OR no {文獻參考的原始原文}

Q2 :yes OR no {文獻參考的原始原文}

請將結果以表格呈現

以下是針對 **Frontiers** 文獻「作者是否評估所納入研究文獻的品質」的評估結果：

問題	回答	文獻參考的原始原文
Q1	YES	"Two independent reviewers (HZ and ML) assessed the risk of bias of the included studies according to the Cochrane Handbook for Systematic Reviews of Interventions (version 5.1), and the disagreement were resolved by consulting the 3rd reviewer (NS)." (Sodium-Glucose Co-Trans...)
Q2	YES	"We assessed the quality of the included studies concerning 7 aspects including random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, and selective reporting and other bias." (Sodium-Glucose Co-Trans...)

AI輔助

關於研究結果,你可以把數據列出,並且分析是否具有統計上意義以及臨床上意義嗎?

關於研究結果,你可以把主要結果與次要結果數據列出,包含點估計值以及信賴區間,並且分析是否具有統計上意義以及臨床上意義,證據等級與證據品質?請用表格來整理。縱軸包含主要結果、次要結果,而橫軸包含點估計值 | 信賴區間 | 統計上意義 | 原始數據判斷依據|臨床上意義| 原始數據判斷依據| 證據等級 |證據品質。臨床上意義,類別變項請使用NNT去表示,連續變項請使用SMD來表示。如果結果包含判斷內容,請提供判斷邏輯,提供我們可以複查檢視。

結果類型	點估計值	信賴區間	統計上意義	原始數據判斷依據	臨床上意義	原始數據判斷依據	證據等級	證據品質
主要結果								
體重變化	-1.42 kg	-1.70 to -1.14	有	p < 0.00001	SMD: 0.35	根據小幅體重減輕的效果計算	中	低 (樣本量少)
BMI 變化	-0.47 kg/m ²	-0.63 to -0.31	有	p < 0.00001	SMD: 0.33	根據小幅BMI改善計算	中	低 (樣本量少)
次要結果								
腰圍變化	-1.34 cm	-2.75 to 0.07	無	p = 0.06	無臨床意義	腰圍變化小且不顯著	低	低
不良事件	RR: 1.45	0.83 to 2.54	無	p > 0.05	NNT無法計算	不良事件未顯著升高	中	中

AI輔助

屬性	我們的病人	文獻中的族群	相似程度 (0~10分)
病人 特性	30出頭男性，醫療工作者，久坐生活型態，超重/肥胖，脂肪肝	非糖尿病，超重或肥胖患者（年齡範圍18-61歲，多數為女性），平均基線BMI約36 kg/m ² ，體重分布68~105 kg	7
國家/ 種族	台灣，亞洲地區	參與者來自美國、歐洲（丹麥、英國等）及其他國家，亞洲代表不足	5
介入 治療	SGLT2 抑制劑（如 Dapagliflozin, Canagliflozin）	使用SGLT2抑制劑（Canagliflozin, Dapagliflozin 等），劑量包括50300 mg/day，治療期間多為226週	9
對照 處置	安慰劑或生活方式改變（如飲食控制、運動）	與安慰劑對照，所有受試者均接受標準化的飲食和運動建議	9
預期 指標	體重下降、BMI減少、脂肪肝改善、血脂改善（IDL和TG）	體重減少（-1.42 kg, MD）、BMI降低（-0.47 kg/m ² , MD）；未直接討論脂肪肝或血脂改善	6

AI輔助

PDA 結構

1. 診斷

- 病情：小莊，30 出頭，肥胖（BMI > 30），脂肪肝，三酸甘油酯（TG）過高。
- 目標：體重控制、脂肪肝改善、降低代謝風險。

項目	SGLT2 抑制劑
優點	1. 可輕微減重（平均體重減少 1.42 kg） 2. 降低代謝相關風險（如心血管風險、血糖控制）。 3. 服用簡便，依從性高。
缺點	1. 減重效果有限，需與其他方案結合（如飲食）。 2. 成本較高（每年約 8,400 USD）。 3. 可能出現副作用（如泌尿感染、生殖感染）。
相對適合族群	1. 減重需求不大，但需降低代謝風險的患者。 2. 無法持續執行飲食和運動計劃的患者。

偏好/價值觀	SGLT2 抑制劑
減重效果	★★★★
成本承受能力	★★★
副作用容忍度	★★★★
執行可行性	★★★★★★
長期健康改善重要性	★★★★★

• 對小莊的適配建議：

- 若以減重為主要目標，且能自律進行生活方式改變，建議首選生活方式改變。
- 若代謝改善是首要目標，且對減重要求不高，且願意接受藥物副作用和成本，可選擇 SGLT2 抑制劑。
- 混合策略：建議將生活方式改變與 SGLT2 抑制劑結合使用，以達到更好的綜合效果。