



三軍總醫院

Tri-Service General Hospital

# 實證醫學競賽

組別：第**五**組

時間：107年5月23日

地點：國防醫學院2樓20教室

1

# 我們的成員



林欣德 藥師



許瑞育 藥師



陳怡文 藥師

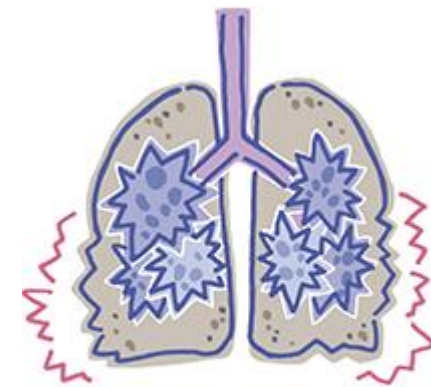
# 臨床場景

對象	55歲陳媽媽，診斷為特發性肺纖維症
情況	無抽菸習慣、規律運動
	近期發現運動會喘、無法一次爬完樓梯
	非自體免疫、感染問題
家屬期望	肺功能進步或延緩惡化，副作用大嗎
家屬欲知	接受傳統治療或接受新的藥物治療

# 背景資訊

## ■ 疾病簡介：

- 特發性肺纖維化 (Idiopathic Pulmonary Fibrosis, IPF) 為特發性間質性肺炎中最常見之一種，是無明顯原因的肺纖維化現象，因而造成肺功能惡化，是一致命的呼吸系統疾病。其中肺間質的廣泛纖維化形成而使肺組織增厚，造成不可逆轉地喪失肺組織氧氣交換的能力。
- 最常發生在50至70歲的老年人。



肺部間質變硬  
而難以擴張

# 背景資訊

- 症狀：
  - 一開始會有乾咳（沒有痰的咳嗽），或是在爬坡以及在上下樓梯時會上氣不接下氣。



乾咳（沒有痰的咳嗽）



在上下樓梯時會上氣不接下氣



# 背景資訊

- 診斷方法：
  - 經症狀判斷、X光檢查等方式懷疑患有IPF時，在排除其他呼吸器官疾病的可能性下，可藉由肺部影像診斷（高解析度電腦斷層, HRCT）來進行確診。若難以判定，也可能進行肺部切片檢查。



高解析度電腦斷層 (HRCT)



肺活量檢查



X光檢查

# 臨床問題

	PICO 1	PICO 2
P	Idiopathic pulmonary fibrosis	
I	Nintedanib/Pirfenidone	Exercise
C	Placebo	No Exercise
O	FVC/Mortality	FVC/Mortality
類型	治療/預防問題	預後型問題

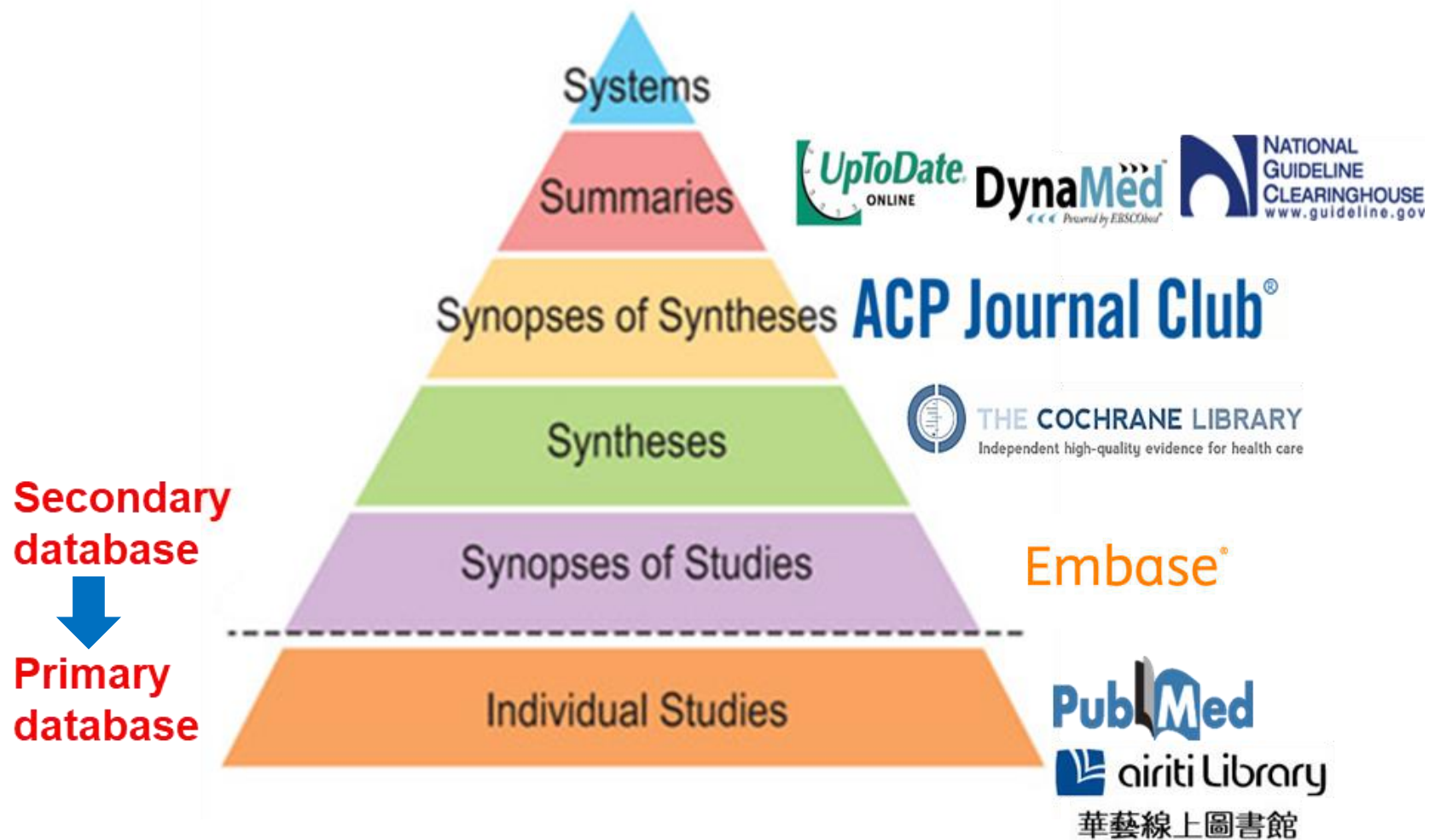
# 關鍵字

## ■ 我們選擇PICO 1

	中文關鍵字	英文關鍵字	同義字 /MeSH/Emtree
P	特發性肺纖維症	Idiopathic pulmonary fibrosis(IPF)	Fibrocystic Pulmonary Dysplasia/Familial Idiopathic Pulmonary Fibrosis
I	Nintedanib/Pirfenidone	Nintedanib/Pirfenidone	Nintedanib/Pirfenidone
C	Placebo	Placebo	Placebos
O	肺功能/死亡率	FVC/Mortality	Mortalities/ Case Fatality Rate



# 搜索策略



- 以「P & I」搜尋，再依結果調整納入之關鍵字與同義字。

與臨床場景相符？

**Systemic review (SR)**

相符！

不相符！

進行文獻評讀

**Randomized controlled trial (RCT)**

相符！

不相符！

進行文獻評讀

**Controlled trial**

# SECONDARY DATABASE: COCHRANE

Cochrane.org

Search title, abstract, keyword

Browse Advanced Search

Cochrane Reviews ▾ Trials ▾ More Resources ▾ About ▾ Help ▾

Preview the new Cochrane Library website

GettyImages/Sigrid Gombert

**HPV vaccine**  
Effects on cervical lesions

[Read the review](#)

Mauro Fomartolo/SciencePhotoLibrary

**Prevent postpartum haemorrhage**

[Read the review](#)

Prof P. Motta/SciencePhotoLibrary

**Vertebroplasty for fracture**

[Read the review](#)

# SECONDARY DATABASE: COCHRANE

Search      Search Manager      Medical Terms (MeSH)      Browse

To search an exact word(s) use quotation marks, e.g. "hospital" finds hospital; hospital (no quotation marks) finds hospital and hospitals; pay finds paid, pays, paying, payed)

Add to top      Keyword :

[-] Edit [+]	#4	<u>pirfenidone</u>	[MeSH]	190
[-] Edit [+]	#5	<u>colchicine</u>	[MeSH]	620
[-] Edit [+]	#6	<u>n-acetylcysteine</u>	[MeSH]	1138
[-] Edit [+]	#7	forced vital capacity	[MeSH]	4660
[-] Edit [+]	#8	quality of life	[MeSH]	76383
[-] Edit [+]	#9	#1 and (#2 or #3 or #4 or #5 or #6) and #7	[MeSH]	144

View all lines

1. 使用 **Cochrane Library search Manager** 搜尋  
加入 **布林邏輯 AND** 作搜尋連結
2. **Search limit:** 未限制年份

# SECONDARY DATABASE: COCHRANE

All Results (144)

Cochrane Reviews (19)

- All
- Review
- Protocol
- Other Reviews (0)
- Trials (125)
- Methods Studies (0)
- Technology Assessments (0)
- Economic Evaluations (0)
- Cochrane Groups (0)

- All
- Current Issue

- Me** Methodology
- Dx** Diagnostic
- Ov** Overview
- Pg** Prognosis
- Qu** Qualitative
- Cc** Conclusions changed
- Ns** New search
- Mc** Major change
- Up** Update
- Wd** Withdrawn
- Cm** Comment


Cochrane Database of Systematic Reviews : Issue 5 of 12, May 2018

Issue [updated daily](#) throughout month


There are **19** results from **10264** records for your search on **#9 - #1 and (#2 or #3 or #4 or #5 or #6) and #7** in Cochrane Reviews in the strategy currently being edited

Sort by


Select all | Export all | Export selected

 [Non-steroid agents for idiopathic pulmonary fibrosis](#)  
Paolo Spagnolo , Cinzia Del Giovane , Fabrizio Luppi , Stefania Cerri , Sara Balduzzi , E. Haydn Walters , Roberto D'Amico and Luca Richeldi  
Online Publication Date: September 2010

**Ns** **Cc** **Review**

 [Colchicine for prevention of cardiovascular events](#)  
Lars G Hemkens , Hannah Ewald , Viktoria L Gloy , Armon Arpagaus , Kelechi K Olu , Mark Nidorf , Dominik Glinz , Alain J Nordmann and Matthias Briel  
Online Publication Date: January 2016

**Review**

 [Nebulized and oral thiol derivatives for pulmonary disease in cystic fibrosis](#)  
Julian Tam , Edward F Nash , Felix Ratjen , Elizabeth Tullis and Anne Stephenson

Online Publication Date: September 2015

**Review**

advanced search 檢索：125 篇 Cochrane RCT 文獻，19 篇  
Cochrane Review



# SECONDARY DATABASE: EMBASE

Embase® Search Emtree Journals **Results** My tools Register Login (1) ? ☰

## Results

請選取語言 | ▼

'female'/exp AND 'fibrosing alveolitis'/exp AND 'interstitial lung disease'/exp AND ('nintedanib'/exp OR 'pirfenidone'/exp) AND ('colchicine'/exp OR 'acetylcysteine'/exp OR 'placebo'/exp) AND ('forced vital capacity'/exp OR 'lung function test'/exp OR 'quality of life'/exp)

Search > Mapping ▾ Date ▾ Sources ▾ Fields ▾ Quick limits ▾ EBM ▾ Pub. types ▾ Languages ▾ Gender ▾ Age ▾ Animal ▾ Search tips ▾

**Results Filters**  
+ Expand — Collapse all Apply >

Sources ▾  
Drugs ▾  
 placebo 53  
 pirfenidone Details ▶ 48  
 nintedanib Details ▶ 24  
 acetylcysteine  
 azathioprine  
 carbon monoxide  
 corticosteroid  
 prednisolone  
 prednisone  
Diseases

**History** Save | Delete | Print view | Export | Email Combine > using  And  Or ^ Collapse

#1 'female'/exp AND 'fibrosing alveolitis'/exp AND 'interstitial lung disease'/exp AND ('nintedanib'/exp OR 'pirfenidone'/exp) AND ('colchicine'/exp OR 'acetylcysteine'/exp OR 'placebo'/exp) AND ('forced vital capacity'/exp OR 'lung function test'/exp OR 'quality of life'/exp) 72

72 results for search #1 [Set email alert](#) [Set RSS feed](#) [Search details](#) [Index miner](#)

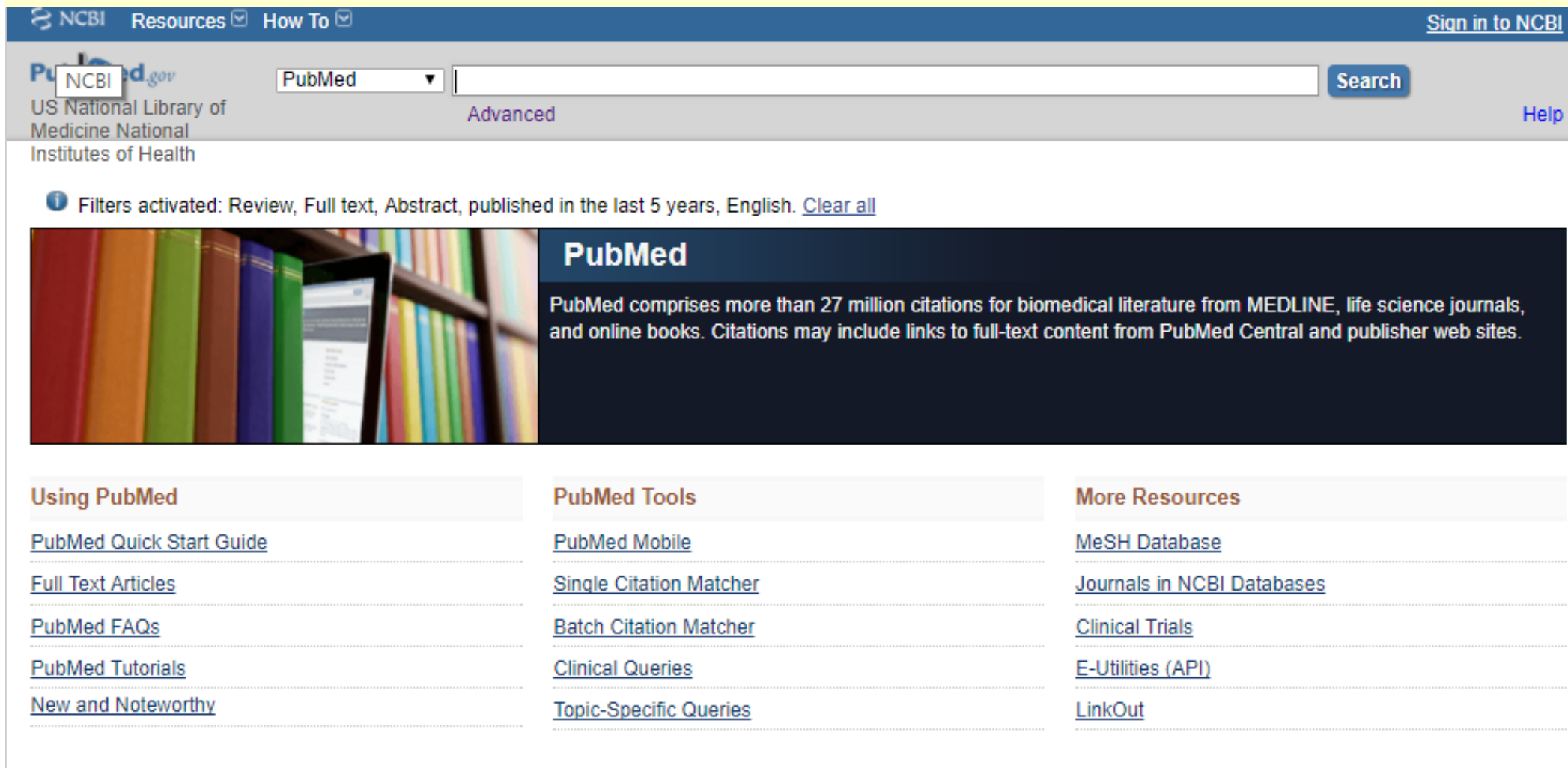
**Results** View | Print | Export | Email | Add to Clipboard 1 — 25 >

Select number of items ▾ Selected: 0 (clear) Show all abstracts | Sort by:  Relevance  Publication Year  Entry Date

[Similar records >](#)  
[Similar records >](#)

1. 使用PICO search，增加效率
2. 使用Emtree，增加精準度
3. 使用內建的Synonyms系統，增加搜尋廣度
4. 使用Filter和Limit

# PRIMARY DATABASE: PUBMED



The screenshot shows the PubMed website interface. At the top, there is a navigation bar with "NCBI Resources" and "How To" menus, and a "Sign in to NCBI" link. Below this is the "PubMed.gov" logo and a search bar with a dropdown menu set to "PubMed". A "Search" button is to the right of the search bar. Below the search bar, the text "US National Library of Medicine National Institutes of Health" is visible. A "Help" link is on the right. A filter notification states: "Filters activated: Review, Full text, Abstract, published in the last 5 years, English. [Clear all](#)". Below this is a large banner for "PubMed" with a background image of books and a tablet. The banner text reads: "PubMed comprises more than 27 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites." Below the banner are three columns of links: "Using PubMed" (PubMed Quick Start Guide, Full Text Articles, PubMed FAQs, PubMed Tutorials, New and Noteworthy), "PubMed Tools" (PubMed Mobile, Single Citation Matcher, Batch Citation Matcher, Clinical Queries, Topic-Specific Queries), and "More Resources" (MeSH Database, Journals in NCBI Databases, Clinical Trials, E-Utilities (API), LinkOut).

NCBI Resources How To Sign in to NCBI

PubMed.gov PubMed Search

US National Library of Medicine National Institutes of Health Help

Filters activated: Review, Full text, Abstract, published in the last 5 years, English. [Clear all](#)

## PubMed

PubMed comprises more than 27 million citations for biomedical literature from MEDLINE, life science journals, and online books. Citations may include links to full-text content from PubMed Central and publisher web sites.

### Using PubMed

- [PubMed Quick Start Guide](#)
- [Full Text Articles](#)
- [PubMed FAQs](#)
- [PubMed Tutorials](#)
- [New and Noteworthy](#)

### PubMed Tools

- [PubMed Mobile](#)
- [Single Citation Matcher](#)
- [Batch Citation Matcher](#)
- [Clinical Queries](#)
- [Topic-Specific Queries](#)

### More Resources

- [MeSH Database](#)
- [Journals in NCBI Databases](#)
- [Clinical Trials](#)
- [E-Utilities \(API\)](#)
- [LinkOut](#)



# PRIMARY DATABASE: PUBMED

Builder

All Fields  [Show index list](#)

AND All Fields  [Show index list](#)

or [Add to history](#)

Keyword :

History [Download history](#) [Clear history](#)

Search	Add to builder	Query	Items found	Time
<a href="#">#22</a>	<a href="#">Add</a>	Search (meta analysis) AND idiopathic pulmonary fibrosis Sort by: PublicationDate	<a href="#">78</a>	20:51:41
<a href="#">#3</a>	<a href="#">Add</a>	Search idiopathic pulmonary fibrosis Sort by: PublicationDate	<a href="#">7878</a>	20:45:53
<a href="#">#21</a>	<a href="#">Add</a>	Search meta analysis Sort by: PublicationDate	<a href="#">142445</a>	20:45:32
<a href="#">#16</a>	<a href="#">Add</a>	Search (((female) AND idiopathic pulmonary fibrosis) AND nintedanib) AND pirfenidone Sort by: PublicationDate	<a href="#">18</a>	20:31:51
<a href="#">#18</a>	<a href="#">Add</a>	Search (((((female) AND interstitial lung disease) AND idiopathic pulmonary fibrosis) AND colchicine) AND n-acetylcysteine	<a href="#">1</a>	19:41:17
<a href="#">#17</a>	<a href="#">Add</a>	Search (((((female) AND interstitial lung disease) AND idiopathic pulmonary fibrosis) AND nintedanib)	<a href="#">18</a>	19:40:55
		ary fibrosis) AND forced vital capacity	<a href="#">0</a>	19:39:46
		ary fibrosis) AND forced vital capacity	<a href="#">0</a>	19:39:45
		onary fibrosis) AND FVC) AND forced vital	<a href="#">0</a>	19:39:09
<a href="#">#12</a>	<a href="#">Add</a>	Search ((((((((((female) AND interstitial lung disease) AND idiopathic pulmonary fibrosis) AND nintedanib) AND pirfenidone) AND colchicine) AND n-acetylcysteine) AND FVC) AND forced vital capacity) AND lung) AND function	<a href="#">0</a>	19:39:08
<a href="#">#11</a>	<a href="#">Add</a>	Search function	<a href="#">12010212</a>	19:38:31
<a href="#">#10</a>	<a href="#">Add</a>	Search lung	<a href="#">819169</a>	19:38:19
<a href="#">#9</a>	<a href="#">Add</a>	Search forced vital capacity	<a href="#">35948</a>	19:37:17

1. 將關鍵字輸入透過MeSH找出最適當之Medical Terms
2. 利用布林邏輯“AND” “OR” “NOT”等語法以免遺漏文獻搜尋分類
3. 使用Clinical Queries檢索分類

# PRIMARY DATABASE: 華藝線上圖書館

airiti Library 華藝線上圖書館 Language ▾

國軍醫院聯合圖書館-國防醫學院, 您好!

瀏覽 進階檢索 儲值&購物車 登入 | 加入會員 | 購買點數 | 個人化服務 ▾ | 客服中心 | 使用說明 | 網站地圖

| 文章 | 出版品 | 所有欄位   ▾ 更多選項

**Keyword: 關鍵字要翻成簡體**

進階檢索

[ALL]:特发性肺纤维化 AND [ALL]:治疗 AND [ALL]:药物

搜尋語言 :  所有文章  繁體中文  簡體中文  英文  其他語言

文獻類型 :  所有類型  電子期刊  會議論文  碩博士論文  電子書  紙本書

出版地區 :  所有地區  台灣  中國大陸(含港澳)  美國  其他地區

年代 :

不限 ▾

1999 以前 ▾ 到 2018 ▾

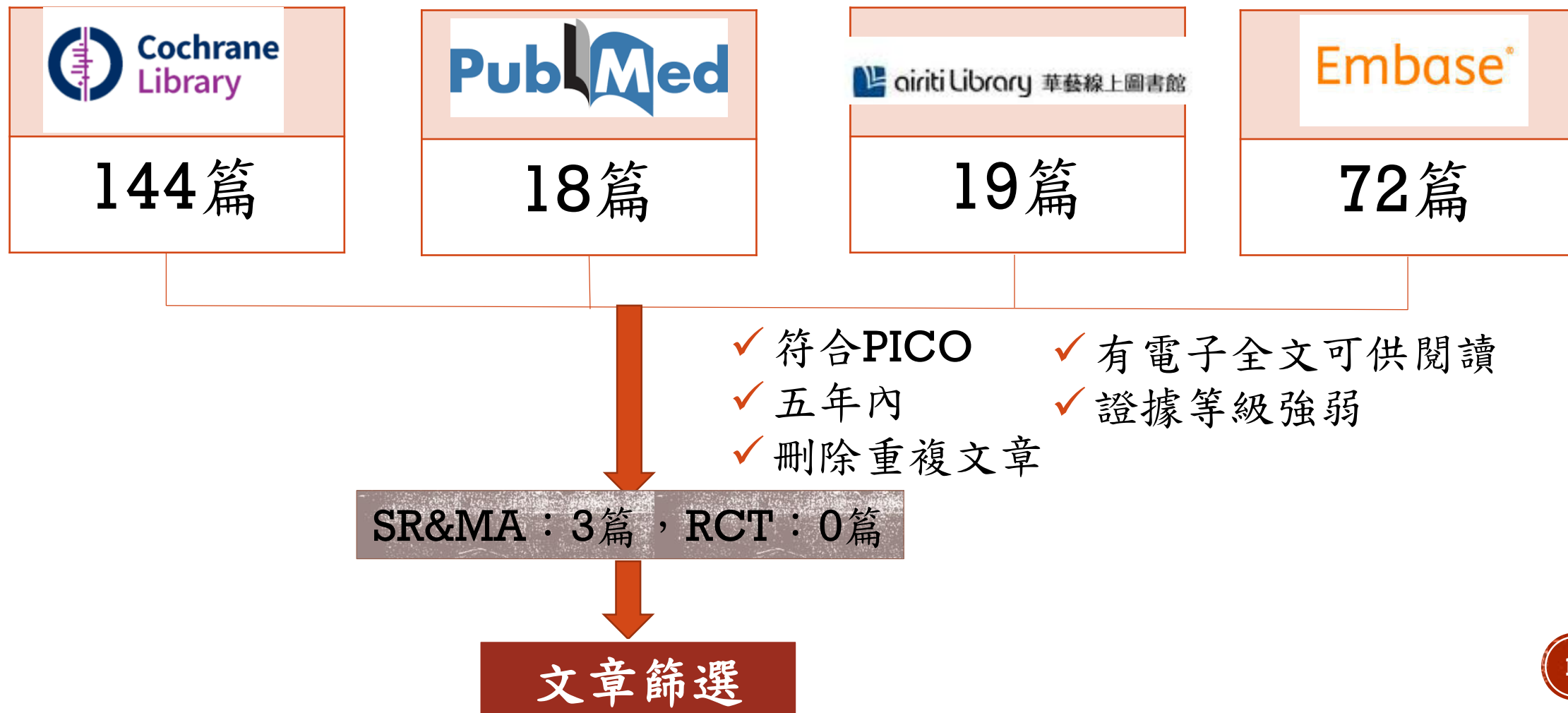
可用半形逗號分隔年代, 例如: 2003,2005

電子全文 :  不限  限有全文  單位已採購

每頁顯示筆數 :  10  20  50

相關程度最高 ▾

# 搜尋結果



# 文章篩選

文章	S	P	I	C	O
[2017] Systematic Review and Network Meta-analysis of Idiopathic Pulmonary Fibrosis Treatments	●	●	●	●	●
[2016] Comparing new treatments for idiopathic pulmonary fibrosis – a network meta-analysis	●	●	●	●	●
[2016] Drug Treatment of Idiopathic Pulmonary Fibrosis	●	●	●	●	●

# 篩選結果

[ Original Research Diffuse Lung Disease ]

CHEST

## Drug Treatment of Idiopathic Pulmonary Fibrosis



### Systematic Review and Network Meta-Analysis

William J. Canestaro, MSc; Sara H. Forrester, PharmD; Ganesh Raghu, MD; Lawrence Ho, MD; and Beth E. Devine, PhD

**BACKGROUND:** Idiopathic pulmonary fibrosis (IPF) is a form of chronic progressive fibrosing interstitial lung disease of unknown origin. Recently, nintedanib and pirfenidone demonstrated efficacy in slowing disease progression and were approved by the US Food and Drug Administration. Although numerous treatments have been evaluated in IPF, none have shown significant decreases in mortality. The objective of this study was to identify all pharmacologic treatments evaluated for IPF and analyze their efficacy via Bayesian network meta-analysis and pairwise indirect treatment comparisons. This review did not evaluate the effect of steroid therapy.

**METHODS:** We searched MEDLINE, Embase, and the Cochrane Library for studies published on or before August 2014. Studies were required to contain a randomized evaluation of nonsteroidal drug therapy for treatment of IPF and be published in English. Key outcomes of interest for this analysis were pulmonary function as measured by FVC as well as all-cause and respiratory-specific death. All outcomes were analyzed via a Bayesian framework.

**RESULTS:** Our review identified 30 eligible studies that evaluated 16 unique treatments. Under both the fixed-effect and random-effect models for respiratory-specific mortality, no treatments performed better than placebo. For all-cause mortality, pirfenidone and nintedanib had effects approaching significance with credible intervals slightly crossing the null under a fixed-effect model. Notably, for respiratory-specific mortality, all-cause mortality, and decline in percent predicted FVC, nintedanib and pirfenidone were virtually indistinguishable and no clear advantage was detected.

- ✓ 最符合臨床問題
- ✓ 發表年份較新
- ✓ 最佳的研究設計
- ✓ 有全文可供評讀

我們的文獻工具是

**NHS**

**CASP SR critical appraisal tool !!**



# 1. DID THE REVIEW ADDRESS A CLEARLY FOCUSED QUESTION?

## 此研究是否問了一個清楚明確的問題?

Yes

No

Can't tell

**BACKGROUND:** Idiopathic pulmonary fibrosis (IPF) is a form of chronic progressive fibrosing interstitial lung disease of unknown origin. Recently, nintedanib and pirfenidone demonstrated efficacy in slowing disease progression and were approved by the US Food and Drug Administration. Although numerous treatments have been evaluated in IPF, none have shown significant decreases in mortality. The objective of this study was to identify all pharmacologic treatments evaluated for IPF and analyze their efficacy via Bayesian network meta-analysis and pairwise indirect treatment comparisons. This review did not evaluate the effect of steroid therapy.

**RESULTS:** Our review identified 30 eligible studies that evaluated 16 unique treatments both the fixed-effect and random-effect models for respiratory-specific mortality. Treatments performed better than placebo. For all-cause mortality, pirfenidone had effects approaching significance with credible intervals slightly crossing the null in the fixed-effect model. Notably, for respiratory-specific mortality, all-cause mortality, and decline in percent predicted FVC, nintedanib and pirfenidone were virtually indistinguishable. No clear advantage was detected.

Ⓟ Idiopathic pulmonary fibrosis  
 ⓇⓈ pharmacologic treatments  
 Ⓢ all-cause mortality . respiratory-specific mortality, all-cause mortality, and decline in percent predicted FVC



## 2. DID THE AUTHORS LOOK FOR THE RIGHT TYPE OF PAPERS?

作者是否收納適當的研究類型？

Yes

No

Can't tell

文章節錄

### Materials and Methods

This systematic review and network meta-analysis was designed to evaluate and quantify the efficacy and harms of available pharmacological treatments for IPF. Studies included those that used a randomized design to evaluate the effect of a nonsteroidal drug therapy published in English. Studies that contained a population

that was not exclusively being treated for IPF but included other interstitial pneumonias were excluded. No limitations were placed on the length of follow-up in our initial search, but the primary end point was treatment effect at 1 year. The literature search, abstraction, and analysis were conducted in accordance with standards outlined in the *Cochrane Handbook for Systematic Reviews of Interventions*<sup>14</sup> and PRISMA statements.<sup>15,16</sup>

# 3. DO YOU THINK ALL THE IMPORTANT, RELEVANT STUDIES WERE INCLUDED?

## 作者有沒有可能遺漏掉重要、相關的研究？

Yes No Can't tell

文章節錄

### Materials and Methods

This systematic review and network meta-analysis was designed to evaluate and quantify the efficacy and harms of available pharmacological treatments for IPF. Studies included those that used a randomized design to evaluate the effect of a nonsteroidal drug therapy published in English. Studies that contained a population

that was not exclusively being treated for IPF but included other interstitial pneumonias were excluded. No limitations were placed on the length of point was abstraction, standards out of Intervention

### Data Sources and Searches

A systematic search was conducted in literature databases including MEDLINE, Embase, and the Cochrane Central Register of Controlled Trials using a search string employed by a previously conducted Cochrane Review to answer the same clinical question (e-Table 1).<sup>17</sup> The search was conducted in October 2014 and no exclusions were placed on the time of publication. Two independent reviewers (W. J. C. and S. H. F.) conducted an abstract review of all records.

Articles th underwent independent at both the made by co resolved by

### Data Ext

Data extraction underwent a process similar to inclusion review, with independent abstraction by the two

- 搜尋的資料庫：MEDLINE, Embase, and the Cochrane
- 文章區間 到2014.10月
- 沒有收錄未發表或是會議相關的文章
- 語言：只有英文

## 4. DID THE REVIEW'S AUTHORS DO ENOUGH TO ASSESS QUALITY OF THE INCLUDED STUDIES?

作者是否有評估收納研究的品質？

文章節錄

### Data Sources and Searches

A systematic search was conducted in literature databases including MEDLINE, Embase, and the Cochrane Central Register of Controlled Trials using a search string employed by a previously conducted Cochrane Review to answer the same clinical question (e-Table 1).<sup>17</sup> The search was conducted in October 2014 and no exclusions were placed on the time of publication. Two independent reviewers (W. J. C. and S. H. F.) conducted an abstract review of all records.

Articles that were not excluded at abstract review underwent a full text review for eligibility by the two independent reviewers. Final decisions on exclusion at both the abstract and full text review stages were made by consensus process and any disagreements were resolved by a third senior reviewer.

### Data Extraction and Quality Assessment

Data extraction underwent a process similar to inclusion review, with independent abstraction by the two

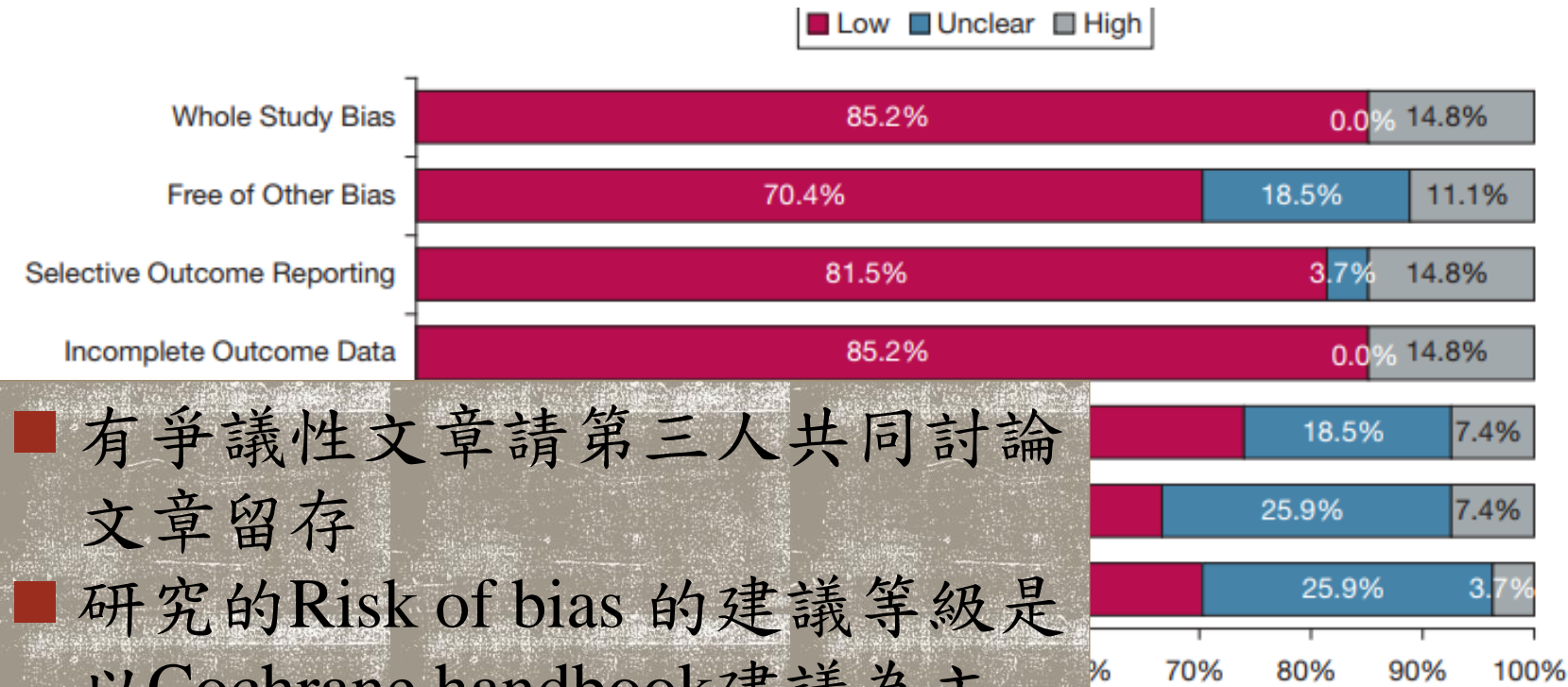
1. 全文由兩位評審員獨立評估
2. 若以上兩者意見相左，則諮詢第三評審員來解決分歧

# 4. DID THE REVIEW'S AUTHORS DO ENOUGH TO ASSESS QUALITY OF THE INCLUDED STUDIES?

作者是否有評估收納研究的品質？

Yes No Can't tell

文章節錄



■ 有爭議性文章請第三人共同討論  
文章留存

■ 研究的Risk of bias 的建議等級是以Cochrane handbook建議為主

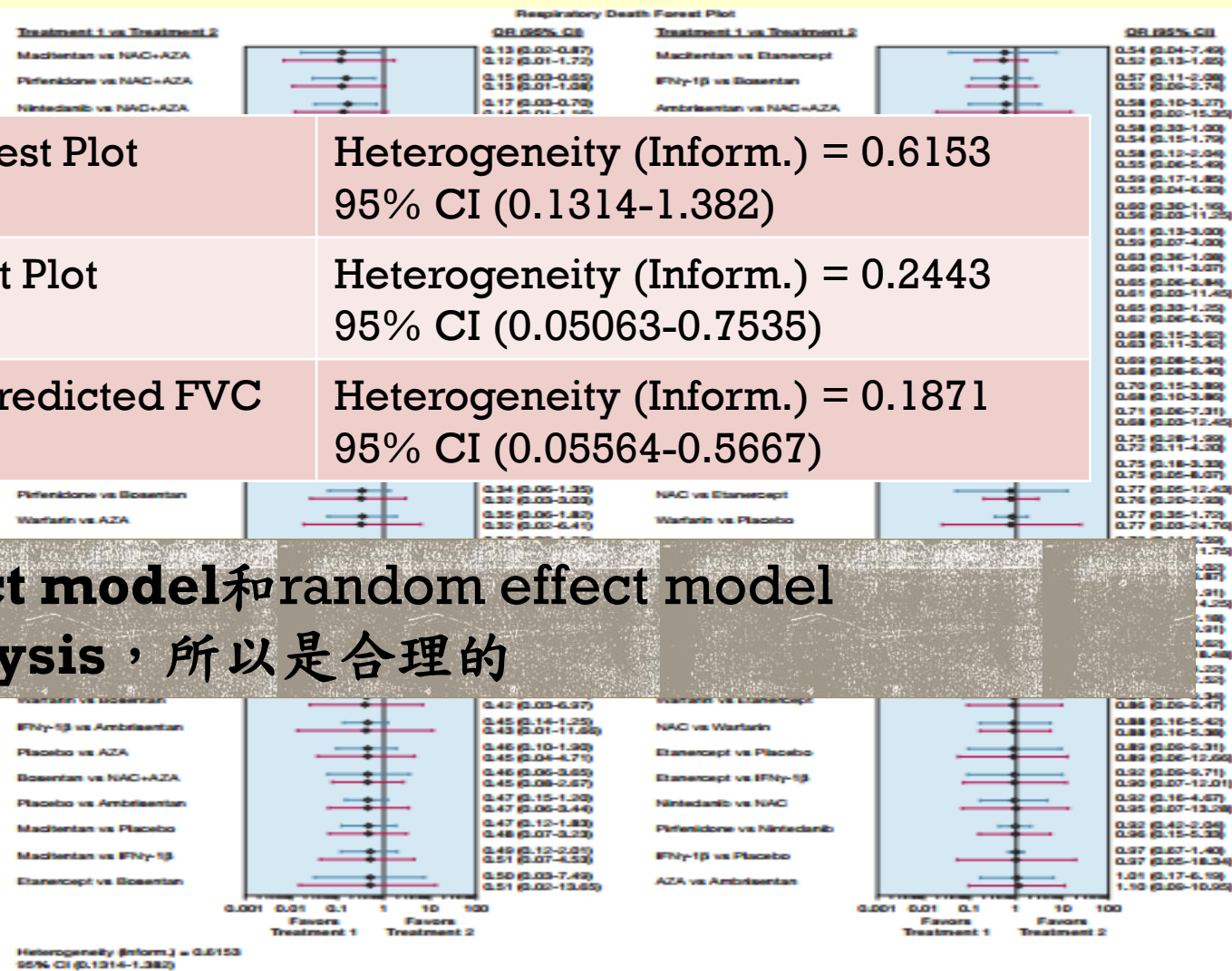


# 5. IF THE RESULTS OF THE REVIEW HAVE BEEN COMBINED, WAS IT REASONABLE TO DO SO? 作者是否有把各個研究的結果合併起來？這樣的合併是合理的嗎？

Yes No Can't tell

文章節錄

Respiratory Death Forest Plot	Heterogeneity (Inform.) = 0.6153 95% CI (0.1314-1.382)
All Cause Death Forest Plot	Heterogeneity (Inform.) = 0.2443 95% CI (0.05063-0.7535)
Decrease in Percent Predicted FVC by $\geq 10\%$	Heterogeneity (Inform.) = 0.1871 95% CI (0.05564-0.5667)



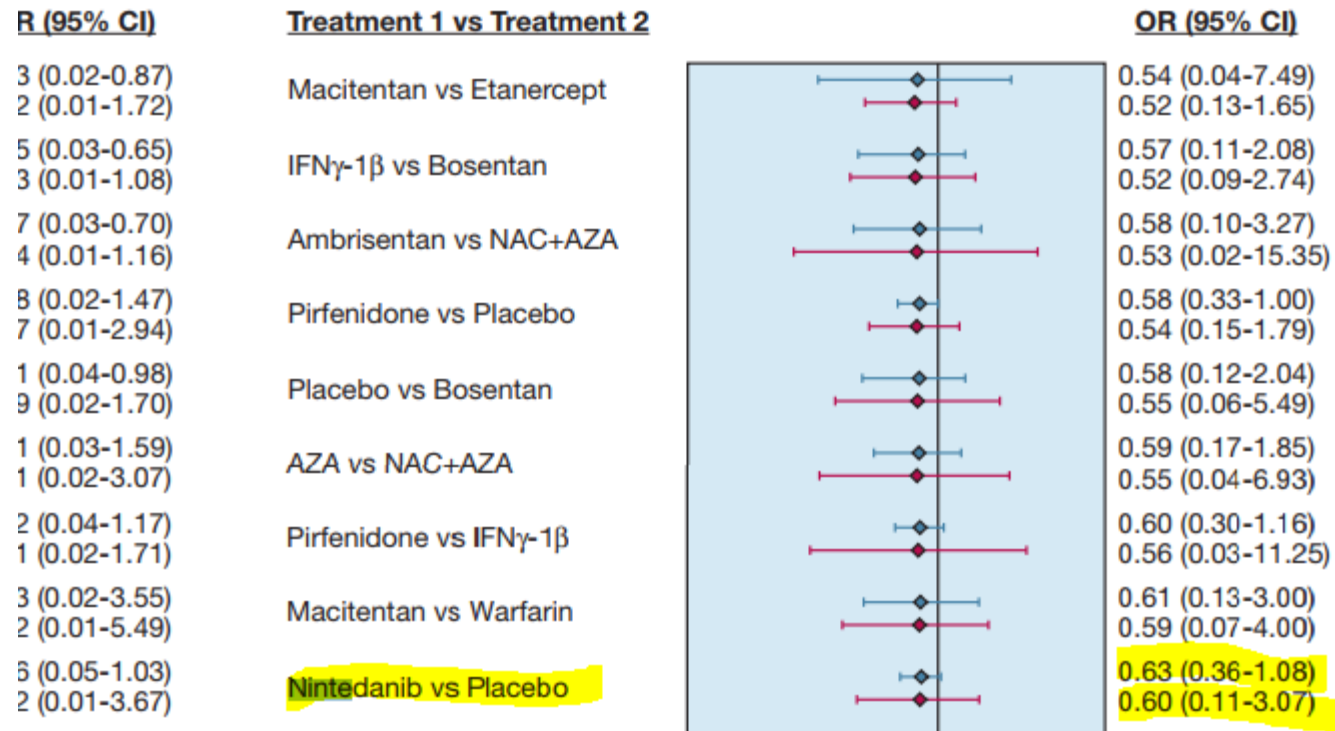
文章採fixed-effect model和random effect model，進行meta-analysis，所以是合理的

## 6. WHAT ARE THE OVERALL RESULTS OF THE REVIEW?

### 這篇回顧呈現了什麼結果？

#### 文章節錄

Respiratory Death Forest Plot



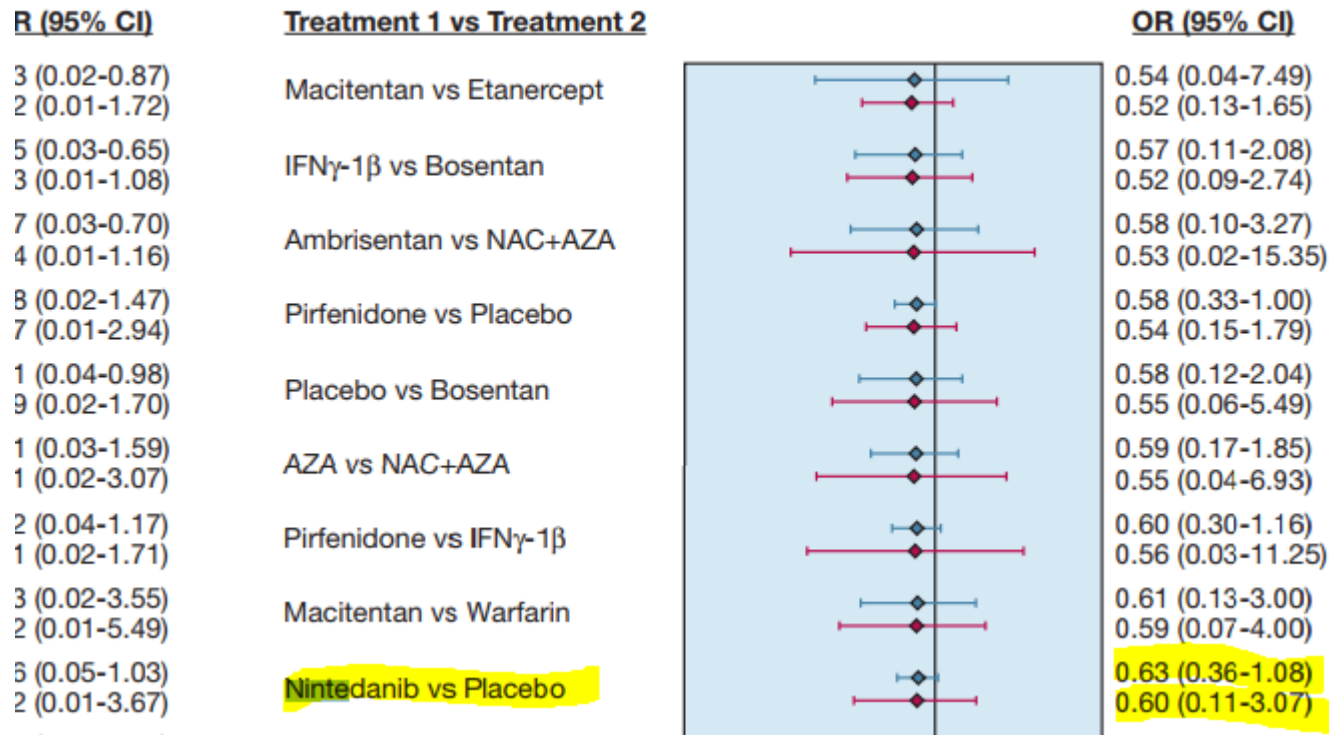


## 7. HOW PRECISE ARE THE RESULTS?

## 結果精準嗎？

## 文章節錄

Respiratory Death Forest Plot



## 8. CAN THE RESULTS BE APPLIED TO THE LOCAL POPULATION? 此研究是否可應用到你的病患？

Patient characteristics extracted from each study included age, sex, weight, smoking status, time since diagnosis, percentage that were diagnosed by biopsy, and concomitant medications including percentage that received steroid treatment. Clinical measures extracted from studies included FVC, the ratio of FEV<sub>1</sub> to FVC, diffusion capacity of the lung for carbon monoxide, oxygen saturation, St George Respiratory Questionnaire score, 6-min walk test distance, median survival, median progression-free survival, and respiratory and all-cause mortality. FVC and diffusion capacity of the lung for carbon monoxide measures were captured in both absolute terms and percent predicted values. Whenever possible, pulmonary function test results were extracted at baseline and at final measurement. Study quality was assessed using the Cochrane Risk of Bias Tool,<sup>14</sup> with an additional measure included for overall study quality.

文獻研究分析是以**特發性肺纖維化的病患**作為研究對象，且為不同藥物及安慰劑治療的比較。

本篇系統性研究歸納了三十篇**文獻共6,865名IPF患者**作為研究對象，且為各治療藥物的比較，故可將本研究應用於本個案上。

## 8. CAN THE RESULTS BE APPLIED TO THE LOCAL POPULATION?

此研究是否可應用到你的病患？

病患選擇治療方式會在意的因素有什麼？以及在意的程度？

考量因素	不重要	普通	重要	非常重要
經濟考量因素		V		
較好生活品質				V
照護的方便性		V		
病人的舒適性		V		
病人可存活時間				V
治療				V

## 8. CAN THE RESULTS BE APPLIED TO THE LOCAL POPULATION?

此研究是否可應用到你的病患？

Yes

No

Can't tell

- 我們的病患與研究是否相仿？
  - 性別 ● 相同疾病 ○ 種族 ● 年齡
  - 疾病特徵（症狀/共病症）
- 這項治療方式在本地可行嗎？
  - 醫療政策 ● 技術性 ● 風土名情
- 是否符合病患主要訴求？
  - 病患考量點：

## 9. WERE ALL IMPORTANT OUTCOMES CONSIDERED?

是否所有重要的臨床結果都被考量到？

Yes

No

Can't tell

TABLE 2 ] Surface Under the Cumulative Ranking

Treatment	Respiratory-Specific Death			All-Cause Death			%FVC Decline $\geq 10\%$		
	FE	RE-V	RE-I	FE	RE-V	RE-I	FE	RE-V	RE-I
Pirfenidone	0.8165	0.6954	0.7896	0.7911	0.6789	0.7315	0.9261	0.8302	0.8816
Nintedanib	0.803	0.6628	0.7618	0.7549	0.7146	0.7493	0.7026	0.7271	0.7299
Imatinib	0.7031	0.6182	0.6861	...	...	...	0.1688	0.2201	0.1883
NAC	0.647	0.5851	0.6325	0.658					
Interferon-gamma-1B	0.5791	0.618	0.6258	0.5045					
Bosentan	0.5668	0.5596	0.5661	0.296	0.3733	0.3379	...	...	...
Placebo	0.5618	0.5498	0.5578	0.4758	0.4844	0.475	0.2026	0.2226	0.2002
Warfarin	0.5559	0.5498	0.5664	0.6338	0.582	0.6003	...	...	...
Macitentan	0.5009	0.4988	0.4819	0.8	0.6671	0.7337	...	...	...
Etanercept	0.3256	0.3678	0.314	0.553	0.5231	0.5374	...	...	...
Ambrisentan	0.2166	0.3206	0.2419	0.2009	0.322	0.2541	...	...	...
AZA	0.2138	0.3334	0.226	0.2432	0.3467	0.2886	...	...	...
NAC plus AZA	0.1472	0.221	0.1968	0.08872	0.1848	0.1229	...	...	...
Colchine	0.1468	0.2929	0.1583	...	...	...	...	...	...

文獻研究以**FVC**以及**死亡率**作為主要評估工具，其結果聚焦、明確。



## 10. ARE THE BENEFITS WORTH THE HARMS AND COSTS?

這些好處隨之而來的傷害和花費是否值得？

Yes

No

Can't tell

特發性肺纖維化 (idiopathic pulmonary fibrosis, IPF) 是原因未明的間質性肺病，Nintedanib (Ofev) 可減緩肺功能惡化速度…

	Nintedanib (Ofev)	Pirfenidone (Esbriet)
<b>機轉</b>	多重標的RTKs	多重抗纖維化機轉
<b>規格</b>	150 mg、100 mg/tab	267 mg/cap
<b>劑量</b>	150 mg Q12H 肝功能不佳改100 mg Q12H	801 mg TID 需監測肝臟功能
<b>效果</b>	INPULSIS-1、2研究 顯著減緩肺功能 (FVC) 下降、 急性惡化風險顯著下降 (NNT 17人)* HRQOL顯著改善*	ASCEND研究 顯著減緩肺功能 (FVC) 下降、 顯著降低與IPF相關死亡風險 (HR 0.32)

\*INPULSIS-2研究數據，在INPULSIS-1研究無顯著差異



# 評讀結果

	問題	結果
有效性	1 Did the review address a clearly focused issue?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
	2 Did the authors look for the right type of papers?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
	3 Do you think all the important, relevant studies were included?	<input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> Can't tell
	4 Did the review's authors do enough to assess the quality of the included studies?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
	5 If the results of the review have been combined, was it reasonable to do so?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
重要性	6 What are the overall results of the review?	
	7 How precise are the results?	
應用性	8 Can the results be applied to the local population?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
	9 Were all important outcomes considered?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell
	10 Are the benefits worth the harms and costs?	<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> Can't tell

## 證據等級

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-of-1</i> 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-of-1</i> 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-of-1</i> 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

# 醫病共享決策 SHARE DECISION MAKING (SDM)



# 臨床回覆

## Evidence

- 根據目前的團隊搜尋到的最佳證據等級顯示

## Expectation

- 病人關心的

## Experiment

- 經驗上其他要注意的

## Environment

- 其他改善方法

Thank  
you