

Evidence-Based Medicine

實證醫學

實證是守護病患健康最好的工具

第三組成員與單位

- 成員-精神醫學部
 - R2趙培竣
 - R2初景文
 - 專科護理師 林佩芸
- 單位內推廣實證醫學歷程
 - 每年派員參與院內外實證醫學相關比賽
 - 每月部內進行實證醫學實作：住院醫師以及實習醫學生
 - 將臨床問題於實證應學討論，並實際應用。

臨床教案簡述

- 林媽媽有兩個小孩，大兒子將要上小學，常常感冒拉肚子，她很怕出生不久2個多月大的女兒也會出狀況。最近聽說有一種輪狀病毒的疫苗，可以增強免疫力。她想知道值不值的打這個疫苗，又有一點擔心副作用。
- 另外，大兒子趁著就讀小學前跟爸爸去大陸旅遊，最近的新聞報導指出今年大陸正在發生腸病毒71型的大流行。因此考慮是否到大陸當地立刻至醫院施打「腸病毒71型疫苗」？打了之後又可以提供什麼樣的保護效果呢？因為當地的網路資訊不太可靠，所以特地來電請益，想請問你這位實證醫學專家給他一些建議。

臨床問題(請用一句話描述)

- 問題1：
 - 兩個月大的女兒施打輪狀病毒疫苗會有哪些副作用？
- 問題2：
 - 即將上小學的男童在中國大陸施打腸病毒71型疫苗有哪些保護效果？

問題類型

- 問題1：

- Therapy/Protection Diagnosis
- Prognosis Harm

- 問題2：

- Therapy/Protection Diagnosis
- Prognosis Harm

問題1的背景知識



- UpToDate: Rotavirus vaccines for infants
- ROTAVIRUS VACCINES
 - (Lisensed)Pentavalent human-bovine rotavirus reassortant vaccine (RV5, PRV, RotaTeq)
 - (Lisensed)Attenuated human [rotavirus vaccine](#) (RV1, HRV, Rotarix)
 - Human-bovine reassortant vaccine (116E, ROTAVAC)
 - Tetravalent human-rhesus reassortant vaccine
- ADVERSE EVENTS AND SAFETY
 - Similar rates of solicited events, including of fever (approximately 42 percent), vomiting (approximately 13 percent), and diarrhea (approximately 19 percent),
 - Intussusception-very rare
 - Kawasaki disease -case report

問題2的背景知識



- UpToDate: Epidemiology, pathogenesis, treatment, and prevention of enterovirus and parechovirus infections
 - PREVENTION —Effective vaccines against enteroviruses other than poliovirus are not yet clinically available. Several inactivated genotype C4 enterovirus 71 vaccines appear promising based on randomized, placebo-controlled multicenter trials in China, each involving more than 10,000 children aged 6 to 35 months (with one study including children up to 6 years old)

問題2的背景知識



衛生署疾病管制局

Taiwan CDC
<http://www.cdc.gov.tw>

- 國內CDC資料
 - 關於中國大陸腸病毒71型疫苗簡介

研發單位	國別	開發進度	病毒株	備註
中生集團	中國大陸	完成Phase III	C4	結果顯示該疫苗對由EV71型病毒引起的手足口病具有90%的保護率。(Lancet.2013 Jun 8 ;381(9882):2024-32.)
北京科興	中國大陸	完成Phase III	C4	初步結果顯示疫苗具有良好的安全性和有效性對EV71型病毒導致的手足口病或疱疹性咽峽炎保護率為94.8%。(N Engl J Med. 2014 Feb 27; 370(9):818-28.)
昆明生物所	中國大陸	完成Phase III	C4	結果顯示該疫苗對由EV71型病毒引起的手足口病具有97.4%的保護率。(N Engl J Med2014 Feb 27; 370(9):829-37.)

問題1的PICO

	Key words	Synonyms
P atient and/or problem	2-month-old female with common cold symptoms and diarrhea	Female infant, gastrointestinal symptoms
I ntervention	Use of rotavirus vaccination	nil
C omparison	Without use of vaccination	nil
O utcome	Side effects of gastrointestinal symptoms	Fever, vomiting, diarrhea,

Key Word: Female infant, rotavirus vaccination, gastrointestinal symptoms

問題2的PICO

	Key words	Synonyms
P atient and/or problem	6-year-old healthy boy visited enterovirus type 71 pandemic region of mainland China	Male children, Chinese enterovirus type 71
I ntervention	Use Chinese vaccination of enterovirus 71	nil
C omparison	Without use of vaccination	nil
O utcome	Prevention of enterovirus type 71 related symptoms	Hand-foot-mouth disease, herpangina

Key Word: Male children, Chinese vaccination of enterovirus 71, Hand-foot-mouth disease, herpangina

資料庫搜尋

- Secondary database
 - Dynamed
 - Cochrane
 - Trip
- Primary database
 - PubMed
 - Medline

文獻搜尋歷程

Secondary database - Dynamed

DynaMed

Male children, enterovirus 71 vaccine, China

Search



Browse: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

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[Hand-foot-and-mouth disease](#)

[Rabies](#)

[Dengue](#)

[Kawasaki disease](#)

[Diabetes mellitus type 2 in adults](#)

Hand-foot-and-mouth disease

Related Summaries

General Information

Epidemiology

Etiology and Pathogenesis

History and Physical

Diagnosis

Treatment

Complications and Prognosis

Prevention and Screening

Guidelines and Resources

Patient Information

ICD-9/ICD-10 Codes

搜尋到5篇

符合PICO的文章：1篇

Secondary database - Cochrane



Trusted evidence.
Informed decisions.
Better health.

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All Results (11)

- Cochrane Reviews (0)
 - All
 - Review
 - Protocol
- Other Reviews (0)
- Trials (11)
- Methods Studies (0)
- Technology Assessments (0)
- Economic Evaluations (0)
- Cochrane Groups (0)

Cochrane Central Register of Controlled Trials : Issue 11 of 12, November 2016

There are 11 results from 992236 records for your search on 'male children, enterovirus 71 vaccine, china in Title, Abstract, Keywords in Trials'

Sort by

Select all | Export all | Export selected

Immunogenicity and safety of an enterovirus 71 vaccine in healthy children: a randomised, double-blind, placebo-controlled phase 2 clinical trial. Zhu F-C, Liang Z-L, Li X-L, Ge H-L, Li Y-L, Zhang Z-Y, Zhang Y-L, Gao F, Chen Q-H, Zhu Q-Y, Chu K, Wu X, Yao X, Guo H, Chen X-Q, Liu P, Dong Y-L, Li F-X, Shen X-L, Liu J-Z. The Lancet, 2013, 381(9871), 1037-1044. Publication Year: 2013

搜尋到12篇

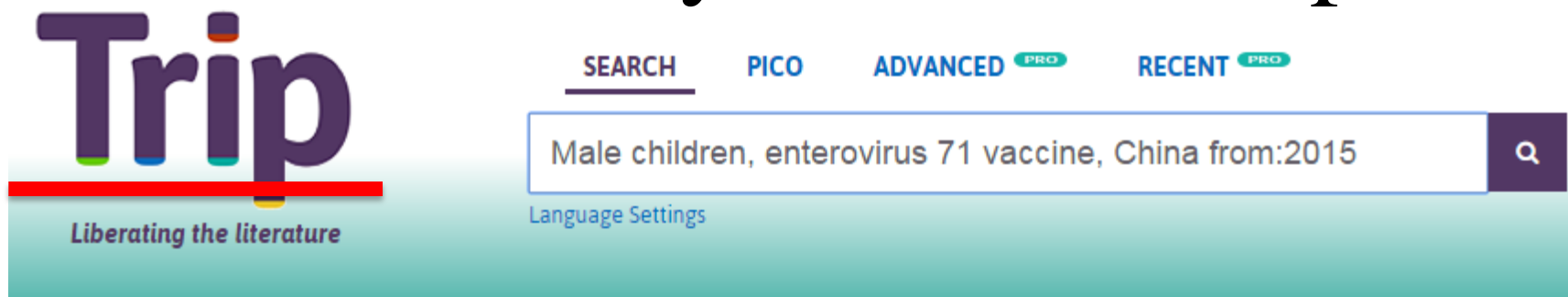
- All
- Current Issue

- Me Methodology
- Dx Diagnostic

An inactivated enterovirus 71 vaccine for children. Li R, Liu C, Mo Z, Wang Y, Wang Z, Zhang J, Li M, Ma Y, Yan J, Song Y, Dong Y, Guo Y, Huang T, Jiang Z, Zhang W, Wang L, Tang Y, Wang L, Liang J, Liu J, Chen H, Ni Y, Liu L, Pu S, Wang E, Shen C, Cui P, Shi H, Wang J and Li J. The New England journal of medicine, 2014, 370(9), 929-937. Publication Year: 2014

符合PICO的文章: 1篇

Secondary database: Trip



Trip
Liberating the literature

SEARCH PICO ADVANCED PRO RECENT PRO

Male children, enterovirus 71 vaccine, China from:2015

Language Settings

🎯 Evidence 🖼️ Images PRO 📺 Videos PRO 🔍 Explorer PRO

29 results for “Male children, enterovirus 71 vaccine, China from:2015”, by quality

Export Order Add to automated search

1. **Efficacy, safety, and immunogenicity of an oral recombinant Helicobacter pylori vaccine in children in China: a randomised, double-blind, placebo-controlled, phase 3 trial.**

Lancet (London, England) 2015

🐦 Tweet this ☆ Star this Estimate of bias: low

搜尋到29篇

2. **Clinical Efficacy of Therapy with Recombinant Human Interferon α 1b in Hand, Foot, and Mouth Disease with Enterovirus 71 Infection.**

PloS one 2016 Full Text: Link to full Text Trip PRO

符合PICO的文章：3篇

Search results

Items: 1 to 20 of 33

<< First < Prev Page 1 of 2 Next > Last >>

Filters activated: Full text, published in the last 10 years, Humans. [Clear all](#) to show 35 items.

[Clinical Efficacy of Therapy with Recombinant Human Interferon \$\alpha\$ 1b in Hand, Foot, and Mouth Disease with Enterovirus 71 Infection.](#)

Huang X, Zhang X, Wang F, Wei H, Ma H, Sui M, Lu J, Wang H, Dumler JS, Sheng G, Xu B. PLoS One. 2016 Feb 16;11(2):e0148907. doi: 10.1371/journal.pone.0148907.

PMID: 26882102 [Free PMC Article](#)
[Similar articles](#)

[Protein microarray-mediated detection of anti-enterovirus antibodies in serum.](#)

Zhang A, Xiu B, Zhang H, Li N. J Int Med Res. 2016 Apr;44(2):287-96. doi: 10.1177/0300060515604981.

PMID: 26831405
[Similar articles](#)

[Two-year efficacy and immunogenicity of Sinovac Enterovirus 71 vaccine against hand, foot and mouth disease in children.](#)

Li JX, Song YF, Wang L, Zhang XF, Hu YS, Hu YM, Xia JL, Li J, Zhu FC. Expert Rev Vaccines. 2016;15(1):129-37. doi: 10.1586/14760584.2016.1096782.

PMID: 26460695
[Similar articles](#)

[Similar protective immunity induced by an inactivated enterovirus 71 vaccine in newborn rhesus macaques and children.](#)

Zhang Y, Wang L, Liao Y, Liu L, Ma K, Yang B, Wang J, Chen J, Jiang L, Pu J, Guo L, Feng M, Liu Y, Cui W, Yang H, Li Q. Vaccine. 2015 Nov 17;33(46):6290-7. doi: 10.1016/j.vaccine.2015.09.047.

PMID: 26419198
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Database: Select ▾

Find items

Search details

((("male"[MeSH Terms] OR "male"[All Fields]) AND ("child"[MeSH Terms] OR "child"[All Fields] OR "children"[All Fields]) AND ("enterovirus"[MeSH Terms] OR "enterovirus"[All

Search

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Male children, enterovirus 71 vaccine, China AND (full text[*sb*] A... (33) PubMed

Male children, enterovirus 71 vaccine, China AND (full text[*sb*] A... (33) PubMed

Male children, enterovirus 71 vaccine, China AND (Humans[*Mesh*]) (34) PubMed

Male children, enterovirus 71 vaccine, China (35) PubMed

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搜尋到33篇

符合PICO的文章：3篇

Primary database: Medline

EBSCOhost

檢索中 · MEDLINE Complete | 選擇資料庫

children 選取欄位 (可加選) 檢索 消除 ?

AND ▼ enterovirus 71 vaccine 選取欄位 (可加選)

AND ▼ 選取欄位 (可加選) + -

[基本檢索](#) [進階檢索](#) [檢索歷史](#)

Natic

縮小檢索結果

目前的檢索項目

布林邏輯/詞組:

children AND enterovirus 71 vaccine

檢索結果：1 - 16 / 16

最近日期 ▼ 頁面選項 ▼

1. A novel inactivated enterovirus 71 vaccine can elicit cross-protective immunity against coxsackievirus A16 in mice.



(English); Abstract available. By: Yang L; Liu Y; Li S; Zhao H; Lin Q; Yu H; Huang X; Zheng Q; Cheng T; Xia N, Vaccine [Vaccine], ISSN: 1873-219; Publisher: Elsevier Science; PMID: 27771182

Hand, foot, and mouth disease (HFMD) is a highly contagious disease that mainly affects infants and children. Enterovirus 71 (EV71) and coxsackievirus A16 (CA16) are the major pathogens of HFMD.

搜尋到16篇

符合PICO的文章：9篇



更多選項 ▾

查詢歷史

期刊文章
1

會議論文
0

碩博士論文
0

電子書
0

依下方條件來精確結果

查詢 (Male children, enterovirus 71 vaccine, China) = 所有欄位

來源資料庫

CEPS中文電子期刊 (1)

學科分類

醫學與生命科學 (1)

年代

2010 (1)

出版品名稱

實用兒科臨床雜誌 (1)

指標期刊

篇名.關鍵字.摘要 作者 刊名 起始年 結束年 檢索結果再查詢

每頁 10 筆

共 1 筆, 1 - 1 筆

共 1 頁 ◀ 1 ▶

搜尋到1篇

- 相關程度最高
- 1 河北省2008年手足口病的流行病学分析
张九菊(Jiu-Ju Zhang) ; 张少丹(Shao-Dan Zhang) ; 张会丰(Hui-Feng Zhang) ; 田晓瑜(Xiao-Yu Tian) ; 王凤刚(Feng-Gang Wang) ; 荣楠(Xiao-Nan) ;
实用儿科临床杂志 5卷第9期 (2010) 171, 1736-1738
手足口病 ; 流行病学 ; 肠道病毒71型 ; hand-foot-mouth disease ; epidemiology ; enterovirus 71

符合PICO的文章：0篇

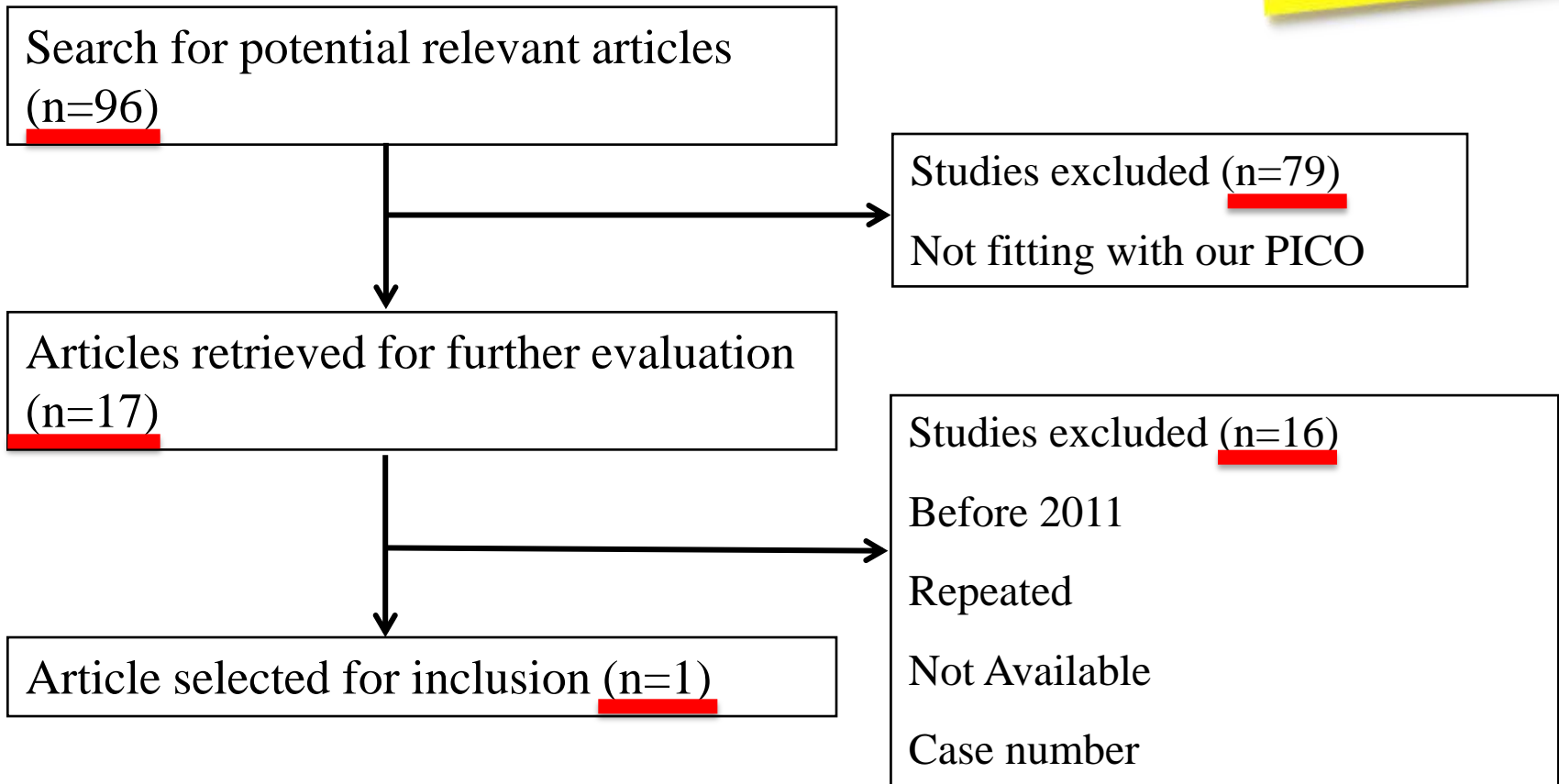
預覽摘要

加入追蹤 全文下載

搜尋結果

Database	搜尋到的篇數	符合PICO的文章篇數
Dynamed	5	1
Cochrane	12	1
Trip	29	3
PubMed	33	3
Medline	16	9
華藝線上	1	0
	96	17

Flow chart for selection of articles



嚴格評讀 (Critical appraisal)

The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

An Inactivated Enterovirus 71 Vaccine in Healthy Children

Critical Appraisal Worksheets English

這篇文獻「納入理由」

- ✓ 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

- [Systematic Reviews](#) Critical Appraisal Sheet
- [Diagnostics](#) Critical Appraisal Sheet
- [Prognosis](#) Critical Appraisal Sheet
- [Randomised Controlled Trials](#) Critical Appraisal Sheet

Was the assignment of patients to treatments randomised?

病人治療之分配是否隨機？

STUDY DESIGN AND PARTICIPANTS

This randomized, double-blind, placebo-controlled clinical study was designed by the Institute of Medical Biology, the Center for Drug Evaluation in the State Food and Drug Administration, and the Center for Disease Control and Prevention

All eligible participants were stratified according to age (6 to 23 months vs. 24 to 71 months). Randomization was performed in a 1:1 ratio in blocks of eight. Identical labels with computer-generated random numbers were used on all study-agent vials. Two doses of either vaccine or placebo were administered intramuscularly, with a 4-week interval between doses.

This paper: Yes **No** **Unclear**

Were the groups similar at the start of the trial?

不同族群於開始時是否相似？

The demographic characteristics of the participants were similar in the two groups (Table 1, and Table S1 in the Supplementary Appendix).

Table 1. Demographic Characteristics of the Participants Included in the Intention-to-Treat Analysis.*

Characteristic	Efficacy Cohort		Immunogenicity Subgroup	
	Vaccine Group (N=6000)	Placebo Group (N=6000)	Vaccine Group (N=549)	Placebo Group (N=550)
Sex — no. (%)				
Male	3151 (52.5)	3099 (51.6)	279 (50.8)	296 (53.8)
Female	2849 (47.5)	2901 (48.4)	270 (49.2)	254 (46.2)
Age at entry — mo				
Mean	23.7±15.2	23.7±15.2	21.2±12.9	21.3±12.8
Range	6.0–71.9	6.1–71.9	6.1–71.3	6.1–69.1
Weight at entry — kg				
Mean	11.9±3.1	11.9±3.1	11.3±2.7	11.4±2.8
Range	4.2–33.6	4.5–30.0	5.0–22.0	5.0–23.0
Ethnic group — no (%)†				
Han	5278 (88.0)	5201 (86.7)	494 (90.0)	477 (86.7)
Zhuang	434 (7.2)	485 (8.1)	28 (5.1)	38 (6.9)
Yao	207 (3.4)	227 (3.8)	22 (4.0)	27 (4.9)
Miao	27 (0.4)	31 (0.5)	1 (0.2)	5 (0.9)
Other	54 (0.9)	56 (0.9)	4 (0.7)	3 (0.5)

This paper: Yes No Unclear

* Plus-minus values are means ± SD. There were no significant between-group differences at baseline. The intention-to-treat analysis included data from all participants who received at least one dose of vaccine or placebo.

† Ethnic group was reported by a parent or guardian and verified by a study investigator.

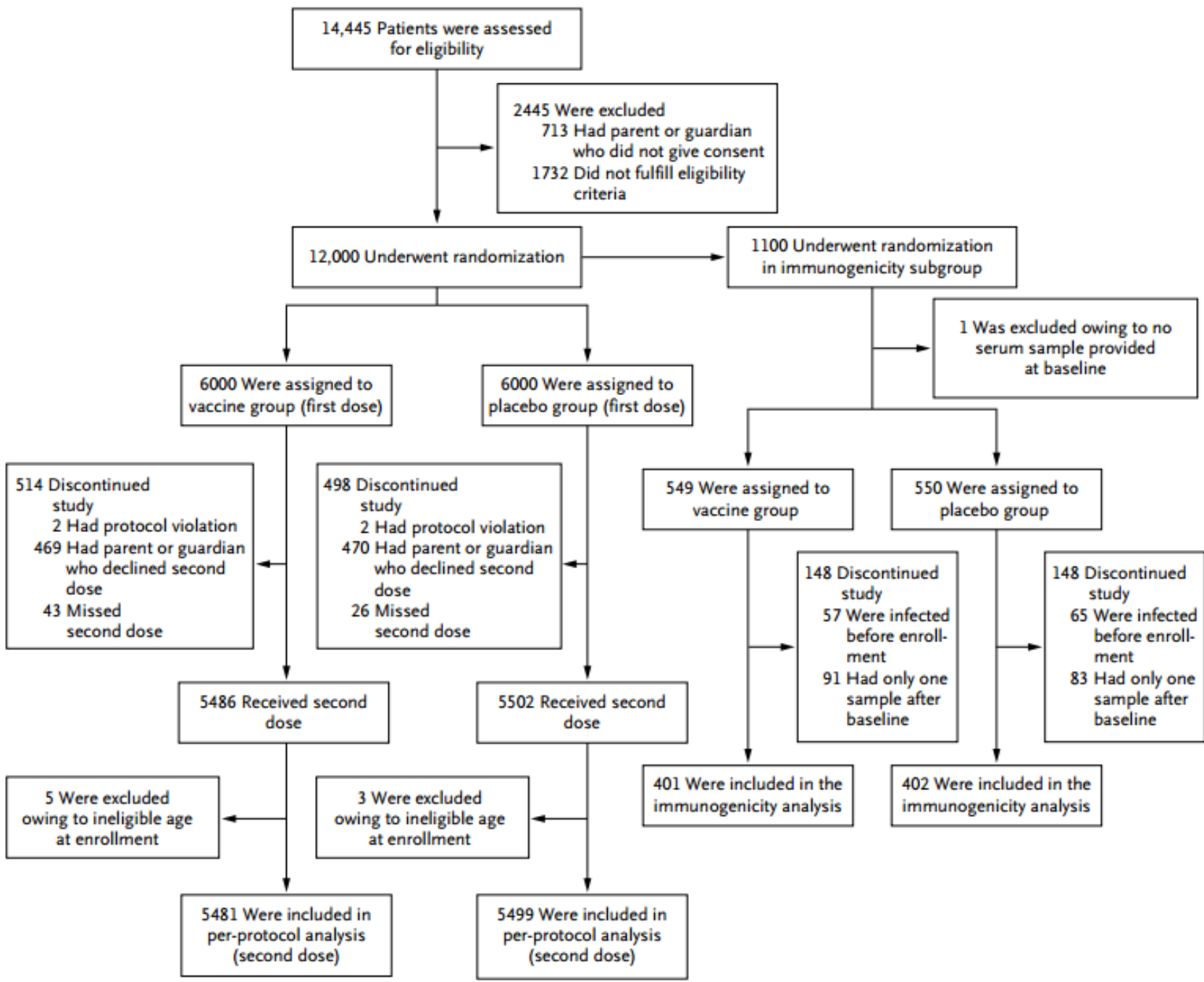
Aside from the allocated treatment, were groups treated equally?

除了主要治療外，其他治療是否相同？

2a. A – Aside from the allocated treatment, were groups treated equally? ↕	
What is best? ↕	Where do I find the information? ↕
Apart from the intervention the patients in the different groups should be treated the same, eg., additional treatments or tests. ↕	Look in the <i>Methods</i> section for the follow-up schedule, and permitted additional treatments, etc and in <i>Results</i> for actual use. ↕

This paper: Yes **No** **Unclear**

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Were measures objective or were the patients and clinicians kept “blind” to which treatment was being received?

All eligible participants were stratified according to age (6 to 23 months vs. 24 to 71 months). Randomization was performed in a 1:1 ratio in blocks of eight. Identical labels with computer-generated random numbers were used on all study-agent vials. Two doses of either vaccine or placebo were administered intramuscularly, with a 4-week interval between doses.

END POINTS

The primary end point was efficacy against EV71-associated hand, foot, and mouth disease according to the case definition described above. Efficacy was assessed from 2 weeks after completion of the two-dose schedule until 1 year after receipt of the first dose. The secondary end points were efficacy against severe hand, foot, and mouth disease within the same study period and the proportion of participants in whom EV71-neutralizing antibodies developed at 56 days and 180 days after the initial vaccination.

This paper: Yes No Unclear

What were the results?

結果如何？

Table 2. Efficacy of the Enterovirus 71 (EV71) Vaccine against Overall Hand, Foot, and Mouth Disease and EV71-Associated Hand, Foot, and Mouth Disease over an 11-Month Period, According to the Intention-to-Treat Analysis.

<u>Cases of Hand, Foot, and Mouth Disease</u>	Vaccine Group (N = 6000)		Placebo Group (N = 6000)		Vaccine Efficacy* % (95% CI)	P Value
	Participants	Incidence <i>no. of cases/ 1000 participants/yr</i>	Participants	Incidence <i>no. of cases/ 1000 participants/yr</i>		
Clinically diagnosed and pathogenically confirmed cases						
Caused by EV71 — no.	4	0.7	151	25.2	97.4 (92.9 to 99.0)	<0.001
Age 6–23 mo — no./total no.	2/3500	0.6	94/3500	26.9	97.9 (91.4 to 99.5)	<0.001
Age 24–72 mo — no./total no.	2/2500	0.8	57/2500	22.8	96.5 (85.6 to 99.1)	<0.001
Caused by coxsackievirus A16 — no.	48	8.0	54	9.0	11.1 (–30.8 to 39.6)	0.55
Caused by other enterovirus — no.	106	17.7	128	21.3	17.2 (–6.0 to 35.8)	0.15
Clinically diagnosed cases — no.	202	33.7	392	65.3	48.5 (39.2 to 56.3)	<0.001

* The calculation of overall vaccine efficacy was adjusted for study center.

What were the results?

結果如何？

- Relative Risk(RR): $(0.8/1000) / (22.8/1000) = 0.035$
- Absolute Risk Reduction (ARR): $22.8/1000 - 0.8/1000 = 2.2\%$
- Relative Risk Reduction (RRR) = $1 - RR = 1 - 0.035 = 0.965$
- Number Needed to Treat (NNT): $1/ARR = 45.45$

Will the results help me in caring for my patient?

- Is my patient so different to those in the study that the results cannot apply? **No**
- Is the treatment feasible in my setting? **Not yet in Taiwan, but available in China**

中國研發腸病毒疫苗上市 標榜全球首個

🕒 建立於 2016/03/28

👤 上稿編輯：鄒敏惠



摘錄自2016年3月27日中央社報導

中國大陸研發的全球首個腸道病毒71型 (EV71) 滅活疫苗日前獲批上市，專家表示，接種此疫苗將有效降低腸病毒兒童手足口病的發病率。在大陸手足口病高發區廣西，今天也完成此疫苗的接種。

- Will the potential benefits of treatment outweigh the potential harms of treatment for my patient? **It generally less or no difference harmed of severe events**

Table 3. Adverse Events and Serious Adverse Events.

Event	All Adverse Events			Adverse Events of Grade 3 or Higher*		
	Vaccine Group (N = 6000) <i>no. of participants with event (%)</i>	Placebo Group (N = 6000) <i>no. of participants with event (%)</i>	P Value	Vaccine Group (N = 6000) <i>no. of participants with event (%)</i>	Placebo Group (N = 6000) <i>no. of participants with event (%)</i>	P Value
Adverse event ≤7 days after injection						
Systemic event	2916 (48.6)	2574 (42.9)	<0.001			
Fever	2498 (41.6)	2111 (35.2)	<0.001	147 (2.4)	149 (2.5)	0.95
Diarrhea	498 (8.3)	535 (8.9)	0.24	8 (0.1)	12 (0.2)	0.50
Nausea, vomiting, or anorexia	530 (8.8)	475 (7.9)	0.08	6 (0.1)	7 (0.1)	1.00
Irritability, drowsiness, or weakness	360 (6.0)	303 (5.0)	0.03	3 (<0.1)	7 (0.1)	0.34
Allergy	166 (2.8)	156 (2.6)	0.61	2 (<0.1)	0	0.50
Local event	356 (5.9)	138 (2.3)	<0.001			
Pain	211 (3.5)	80 (1.3)	<0.001	1 (<0.1)	0	1.00
Redness	130 (2.2)	34 (0.6)	<0.001	1 (<0.1)	0	1.00
Itching	59 (1.0)	31 (0.5)	0.004	0	0	—
Swelling	106 (1.8)	22 (0.4)	<0.001	0	0	—
Adverse event ≤28 days after injection	2841 (47.4)	2985 (49.8)	0.009	136 (2.3)	136 (2.3)	1.00
Serious adverse event	—	—	—	68 (1.1)	125 (2.1)	<0.001
Death†	—	—	—	1 (<0.1)	1 (<0.1)	1.00
Hospitalization‡	—	—	—	67 (1.1)	124 (2.1)	<0.001
Hand, foot, and mouth disease	—	—	—	41 (0.7)	88 (1.5)	<0.001
Injection-related cause§	—	—	—	2 (<0.1)	2 (<0.1)	1.0
Other cause¶	—	—	—	24 (0.4)	34 (0.6)	0.34

證據等級 (Levels of evidence)

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

* Level may be graded down on the basis of study quality, imprecision, indirectness (study PICO does not match questions PICO), because of inconsistency between studies, or because the absolute effect size is very small; Level may be graded up if there is a large or very large effect size.

** As always, a systematic review is generally better than an individual study.

建議分級(Grades of recommendation)

Grades of Recommendation	
A	consistent level 1 studies
B	consistent level 2 or 3 studies <i>or</i> extrapolations from level 1 studies
C	level 4 studies <i>or</i> extrapolations from level 2 or 3 studies
D	level 5 evidence <i>or</i> troublingly inconsistent or inconclusive studies of any level

建議等級	說明
A	有好的證據支持此建議 (level 1研究有一致結論)
B	有相當的證據支持此建議 (level 2或3研究有一致結論，或根據level 1研究之推論)
C	沒有充分證據支持或反對此建議 (level 4研究，或根據level 2或3研究之推論)
D	有level 5的證據，或研究沒有一致結論

臨床回覆

- 林媽媽您好，根據團隊依據實證醫學證據搜尋評讀以及討論現有文獻，特別針對中國大陸當地之文獻指出，您的大兒子於大陸地區施打之腸病毒疫苗，有相當證據支持可降低罹患腸病毒71型所引起之疾病，可降低約96.5%之罹病風險，且由疫苗引起之嚴重副作用機率無明顯差別，僅輕微副作用機率較高，應可安心施打疫苗。