

Can we use marijuana concurrent with cancer treatment? (Opposition)

Trai Tharnpanich

B.Pharm ,BCP, BCOP

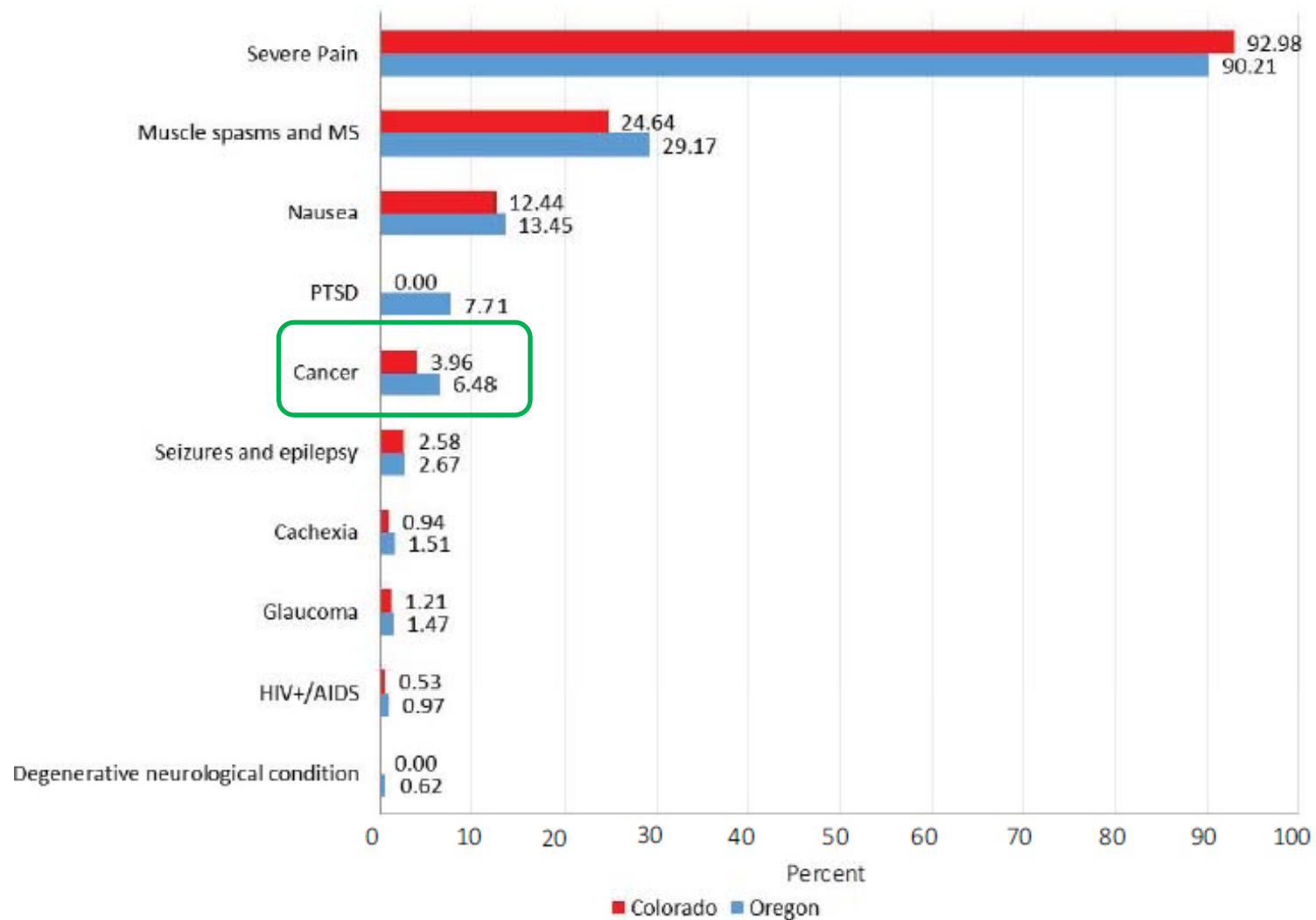
Faculty of medicine, Mahidol university

Department of pharmacy, Siriraj hospital

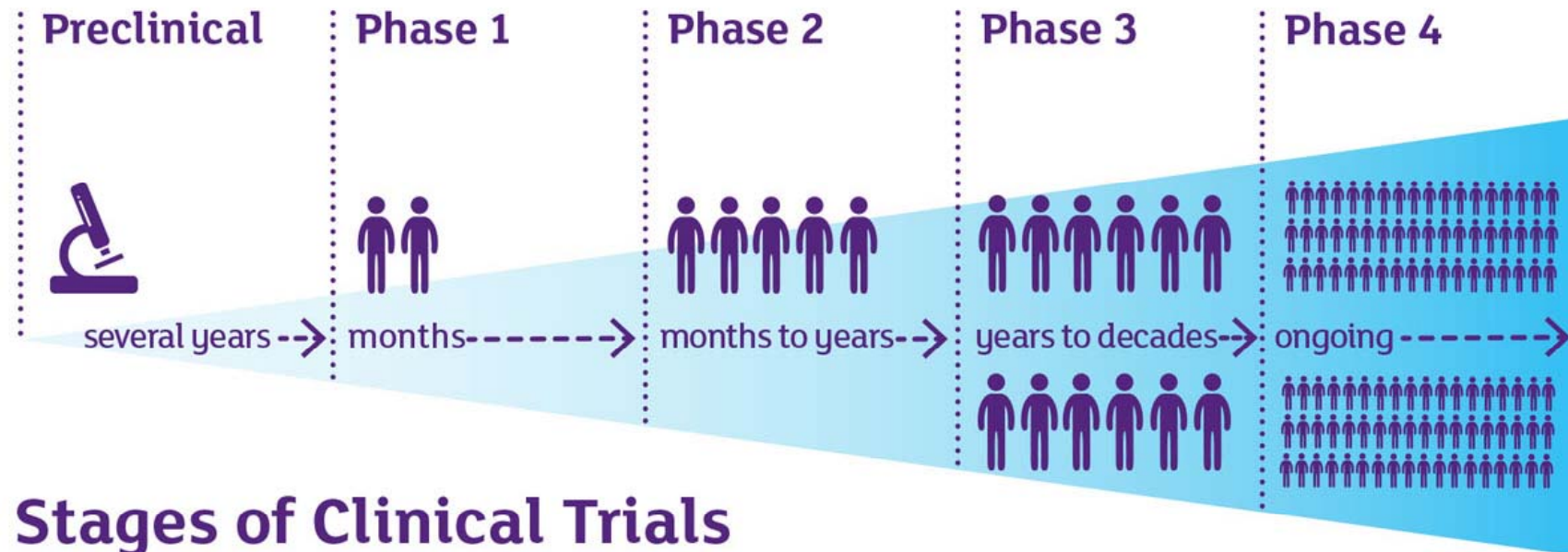
Expectation vs Reality



Percentage of medical cannabis patients



Phase of a clinical trial



Stages of Clinical Trials

Studies in lab or animals	Safety and dosing (↓ patients)	Efficacy and safety (↑ patients)	Efficacy , safety and VS standard Tx (↑↑↑ patients)	Long term safety
---------------------------	--------------------------------	----------------------------------	---	------------------

Original Investigation

Cannabinoids for Medical Use A Systematic Review and Meta-analysis

Penny F. Whiting, PhD; Robert F. Wolff, MD; Sohan Deshpande, MSc; Marcello Di Nisio, PhD; Steven Duffy, PgD; Adrian V. Hernandez, MD, PhD; J. Christiaan Keurentjes, MD, PhD; Shona Lang, PhD; Kate Missou, MSc; Steve Ryder, MSc; Simone Schmidtkofer, MSc; Marie Westwood, PhD; Jos Kleijnen, MD, PhD

IMPORTANCE Cannabis and cannabinoid drugs are widely used to treat disease or alleviate symptoms, but their efficacy for specific indications is not clear.

OBJECTIVE To conduct a systematic review of the benefits and adverse events (AEs) of cannabinoids.

DATA SOURCES Twenty-eight databases from inception to April 2015.

STUDY SELECTION Randomized clinical trials of cannabinoids for the following indications: nausea and vomiting due to chemotherapy, appetite stimulation in HIV/AIDS, chronic pain, spasticity due to multiple sclerosis or paraplegia, depression, anxiety disorder, sleep disorder, psychosis, glaucoma, or Tourette syndrome.

DATA EXTRACTION AND SYNTHESIS Study quality was assessed using the Cochrane risk of bias tool. All review stages were conducted independently by 2 reviewers. Where possible, data were pooled using random-effects meta-analysis.

MAIN OUTCOMES AND MEASURES Patient-relevant/disease-specific outcomes, activities of daily living, quality of life, global impression of change, and AEs.

RESULTS A total of 79 trials (6462 participants) were included; 4 were judged at low risk of bias. Most trials showed improvement in symptoms associated with cannabinoids but these associations did not reach statistical significance in all trials. Compared with placebo, cannabinoids were associated with a greater average number of patients showing a complete nausea and vomiting response (47% vs 20%; odds ratio [OR], 3.82 [95% CI, 1.55-9.42]; 3 trials), reduction in pain (37% vs 31%; OR, 1.41 [95% CI, 0.99-2.00]; 8 trials), a greater average reduction in numerical rating scale pain assessment (on a 0-10-point scale; weighted mean difference [WMD], -0.46 [95% CI, -0.80 to -0.11]; 6 trials), and average reduction in the Ashworth spasticity scale (WMD, -0.12 [95% CI, -0.24 to 0.01]; 5 trials). There was an increased risk of short-term AEs with cannabinoids, including serious AEs. Common AEs included dizziness, dry mouth, nausea, fatigue, somnolence, euphoria, vomiting, disorientation, drowsiness, confusion, loss of balance, and hallucination.

CONCLUSIONS AND RELEVANCE There was moderate-quality evidence to support the use of cannabinoids for the treatment of chronic pain and spasticity. There was low-quality evidence suggesting that cannabinoids were associated with improvements in nausea and vomiting due to chemotherapy, weight gain in HIV infection, sleep disorders, and Tourette syndrome. Cannabinoids were associated with an increased risk of short-term AEs.

JAMA. 2015;313(24):2456-2473. doi:10.1001/jama.2015.6358
Last corrected on April 12, 2016.

2456

Copyright 2015 American Medical Association. All rights reserved.

Editorial page 2431

Related article page 2474

Supplemental content at
jama.com

Author Affiliations: Author affiliations are listed at the end of this article.

Corresponding Author: Penny Whiting, PhD, NIHR CLAHRC West, University Hospitals Bristol NHS Foundation Trust, Ninth Floor, Whitefriars, Lewins Mead, Bristol BS1 2NT, United Kingdom (penny.whiting@bristol.ac.uk).

jama.com

Evidence

79 RCTs were included

28 CINV

28 Chronic pain

14 Spasticity due to multiple sclerosis or paraplegia

4 HIV/AIDS

2 Sleep disorders

2 Psychosis

1 Anxiety disorders

1 Glaucoma

0 Depression

CINV

28 studies

- Nabilone 14 studies
- Dronabinol 3 studies
- Nabiximols 1 studies
- Levonantradol 4 studies
- THC 6 studies

C :

- Dronabinol + Ondansetron/Prochlorperazine (2)
- Placebo (8)
- Active comparators (Prochlorperazine, Chlorpromazine, Domperidone, Alizapride, Hydroxyzine, Metoclopramide, Ondansetron)

All studies suggested a greater benefit of cannabinoids compared with both active comparators and placebo, but these did not reach statistical significance in all studies.

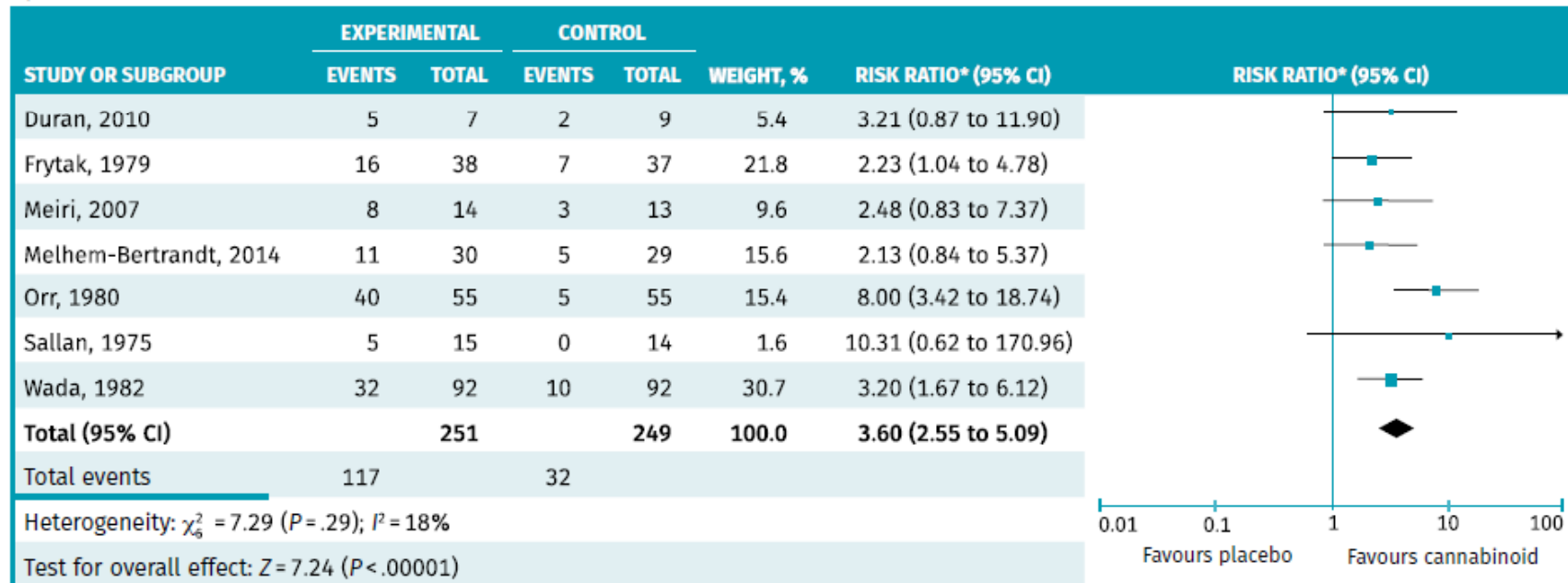
Table 1. Evaluation of Interventions by Included Studies (continued)

Intervention	US Legal Status and Approved Use	Cannabis-Related Properties	Administration Method	Dose Evaluated	Comparator	No. of Studies ^a	Indication
THC	Same as cannabis	Active cannabinoid part of cannabis	Capsules (oral)	Maximum 5 mg-60 mg/d, given 1 ×/d or every 4-6 h in chemotherapy patients	Placebo	3	Pain, Tourette syndrome
					Placebo and codeine	1	Pain
					Placebo and prochlorperazine	2	Nausea and vomiting
					Prochlorperazine	3	
					Hydroxyzine	1	
			Smoked	1-5 cigarettes/d Potency, where reported, ranged from 2.5%-9.4%	Placebo	5	Spasticity, pain
THC/CBD	See individual components	Combination of CBD and THC	Oromucosal spray	Single daily dose to a maximum of 8 actuations/24 h Concentration 1%-7%	Placebo	4	Pain, glaucoma
			Capsules (oral)	Maximum 10 mg-60 mg/d, given as 2 doses	Placebo	4	Spasticity

CINV

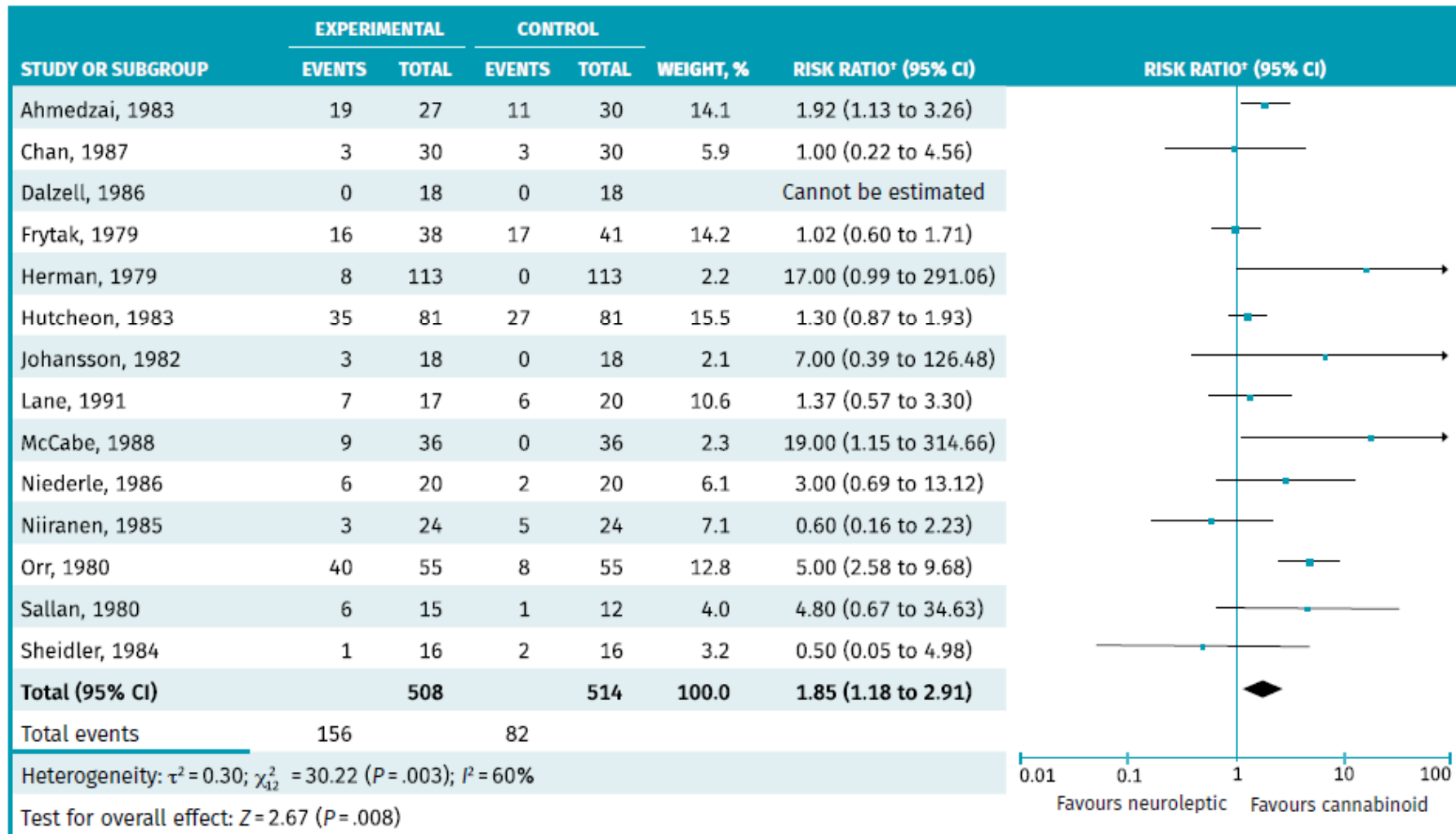
(Medical cannabinoid VS Placebo)

A)

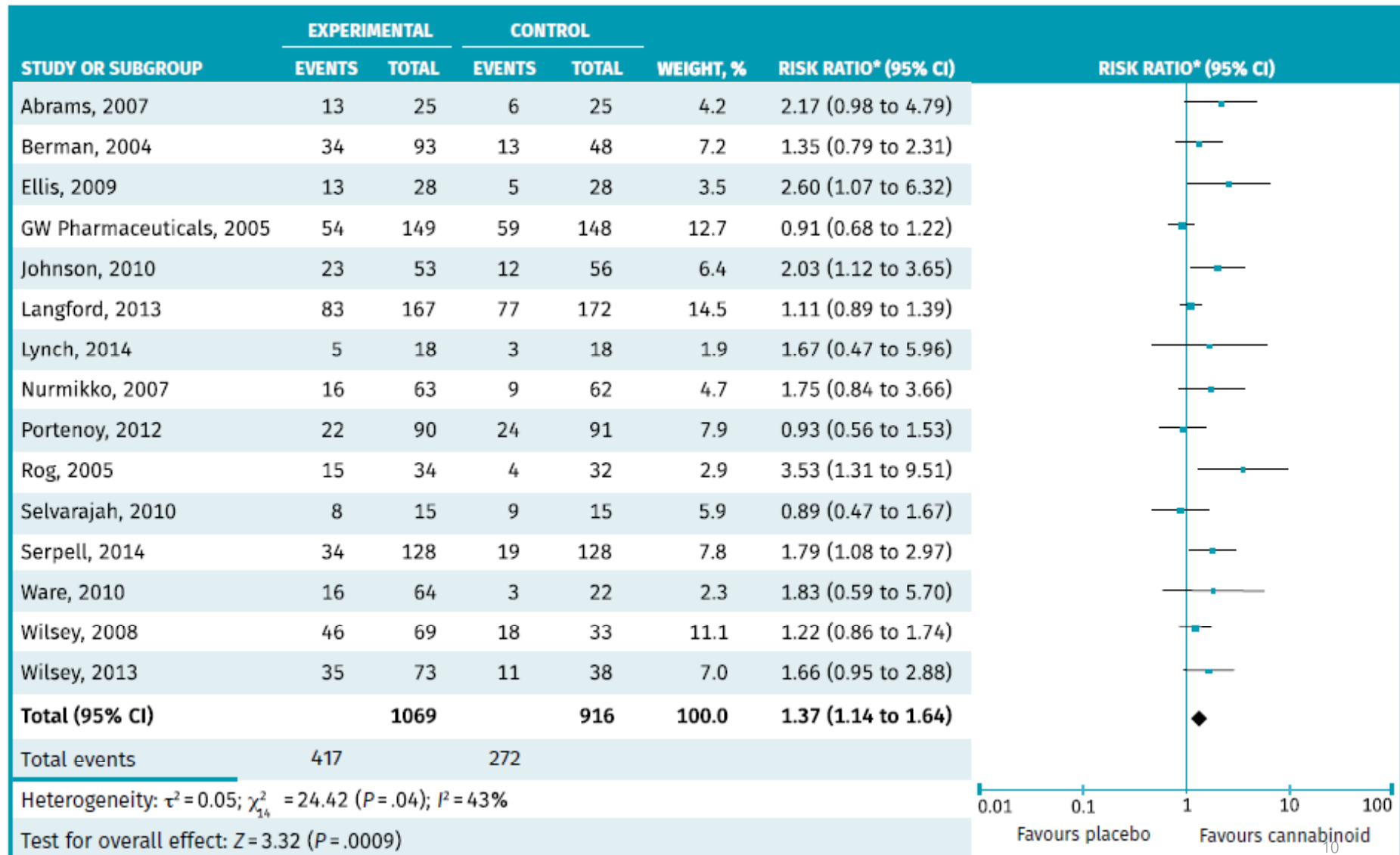


CINV

(Medical cannabinoid VS Antipsychotics)



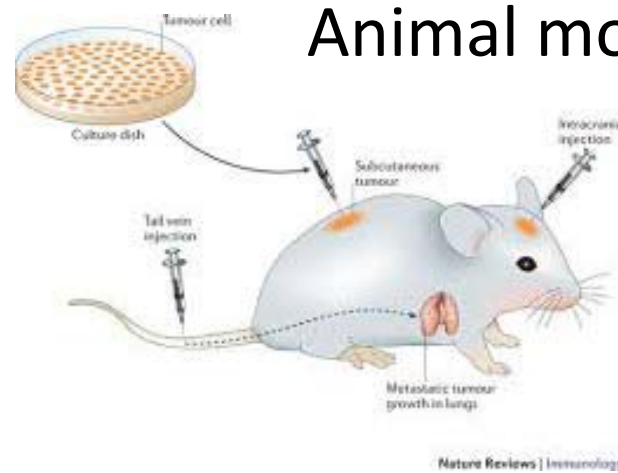
$\geq 30\%$ ↓ Pain (Medical cannabinoids VS Placebo)



Medical cannabis vs Cancer



Low sample size



Animal model testing



Cell line testing

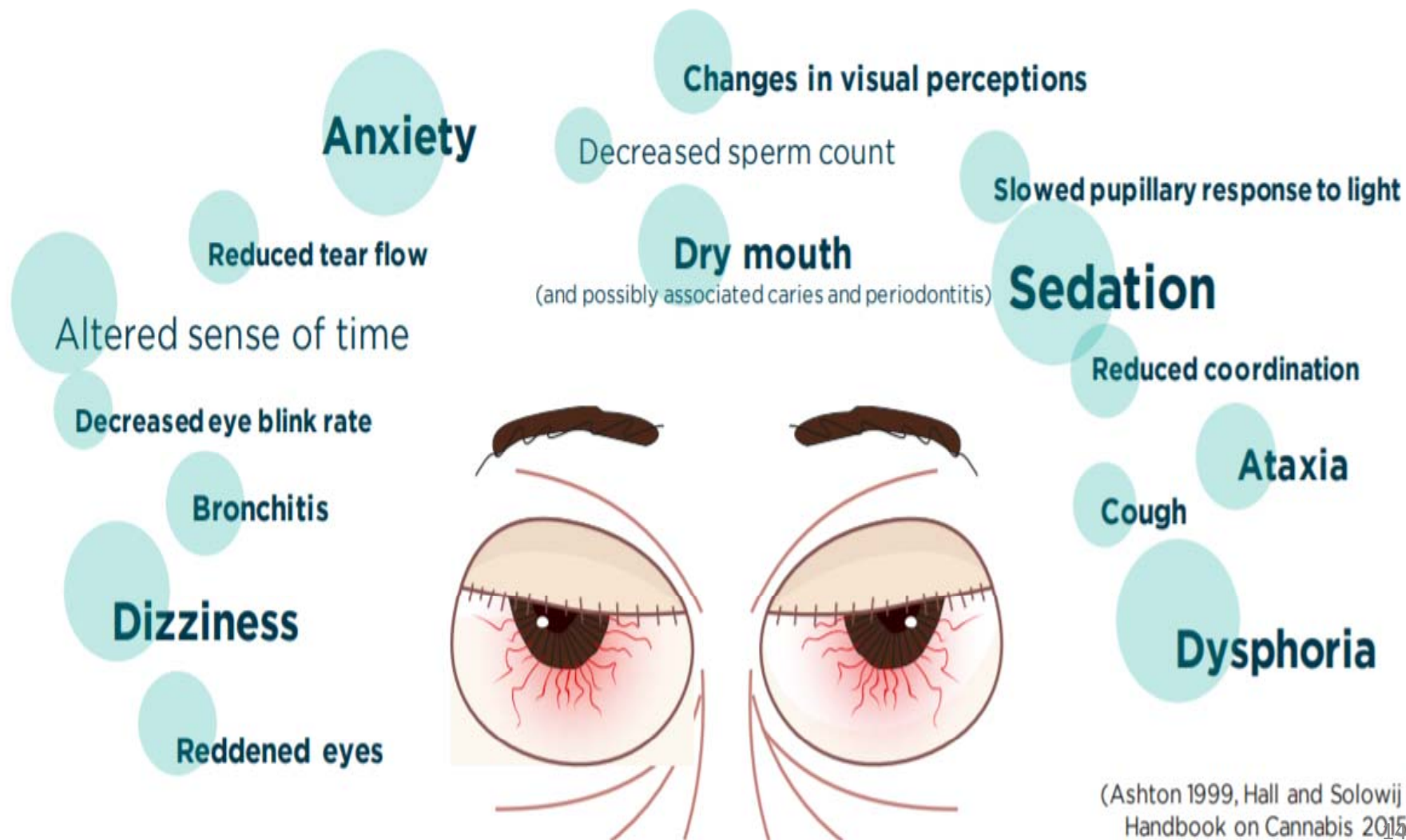
Drug interaction (DI)

Substances	Metabolism	Inhibit	Induce
THC	CYP <u>2C9</u>	CYP 2C9	CYP <u>1A2</u>
	CYP 2C19	CYP <u>2B6</u>	
	CYP <u>3A4</u>	CYP <u>3A4</u>	
CBD	CYP <u>2C19</u>	CYP <u>1A1</u>	
	CYP <u>3A4</u>	CYP 1A2	
		CYP 1B1	
		CYP <u>2D6</u>	
		CYP 2C9	
		CYP 2C19	
		CYP <u>3A4</u>	

DI with Chemotherapy

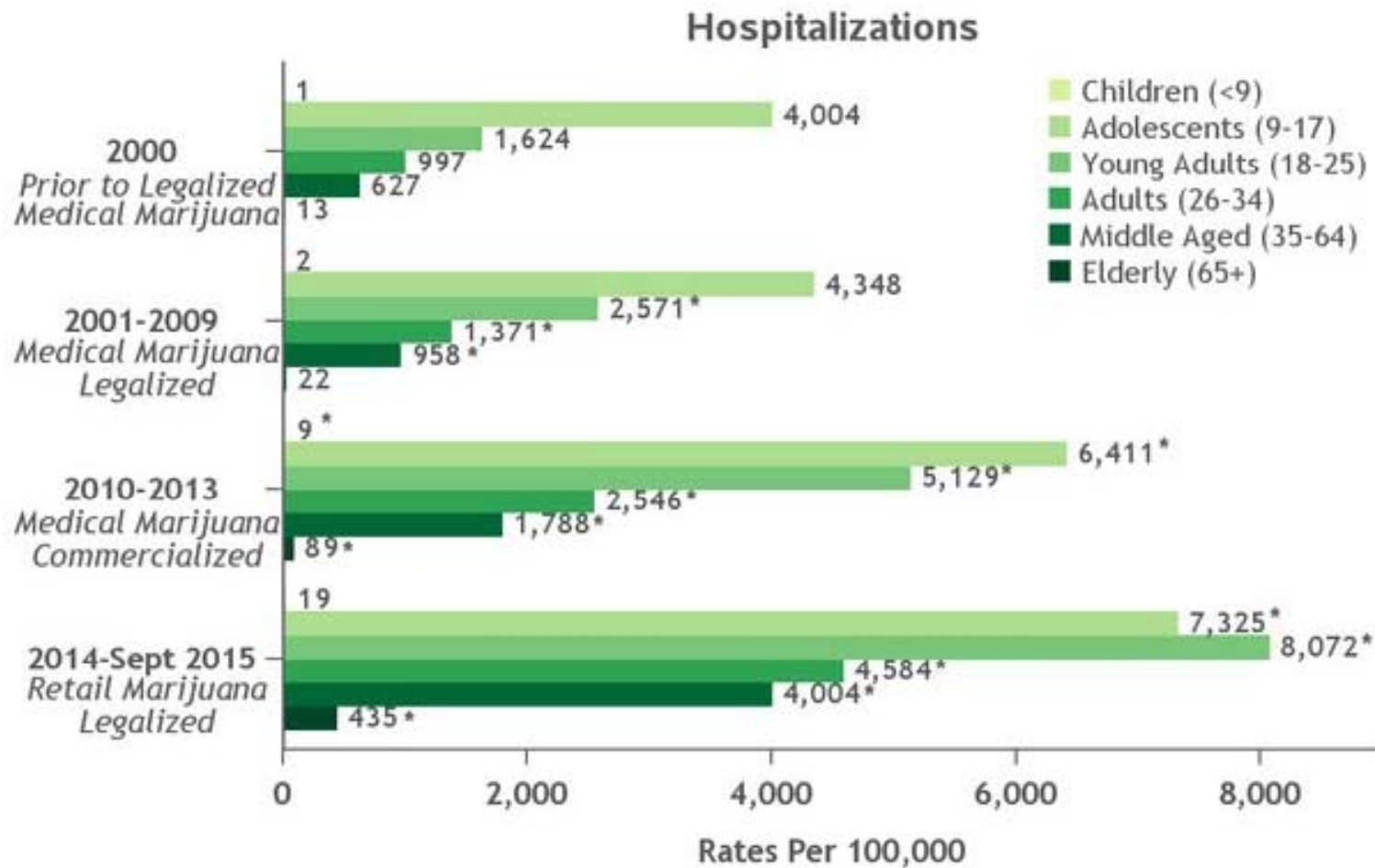
Inhibit P-gp	Inhibit CYP 3A4
Antimetabolite : MTX	Alkylating agents : CTX, Ifosfamide
Anthracycline : Doxorubicin, Daunorubicin (except Idarubicin)	Hormonal therapy : Tamoxifen, Anastrozole, Letrozole
Mitoxantrone	
Tamoxifen (CYP2D6)	
Taxane : Docetaxel, Paclitaxel	
Vinca alkaloid	
Topoisomerase I/II inhibitors : Irinotecan, Topotecan, Etoposide	
Tyrosine kinase inhibitors	

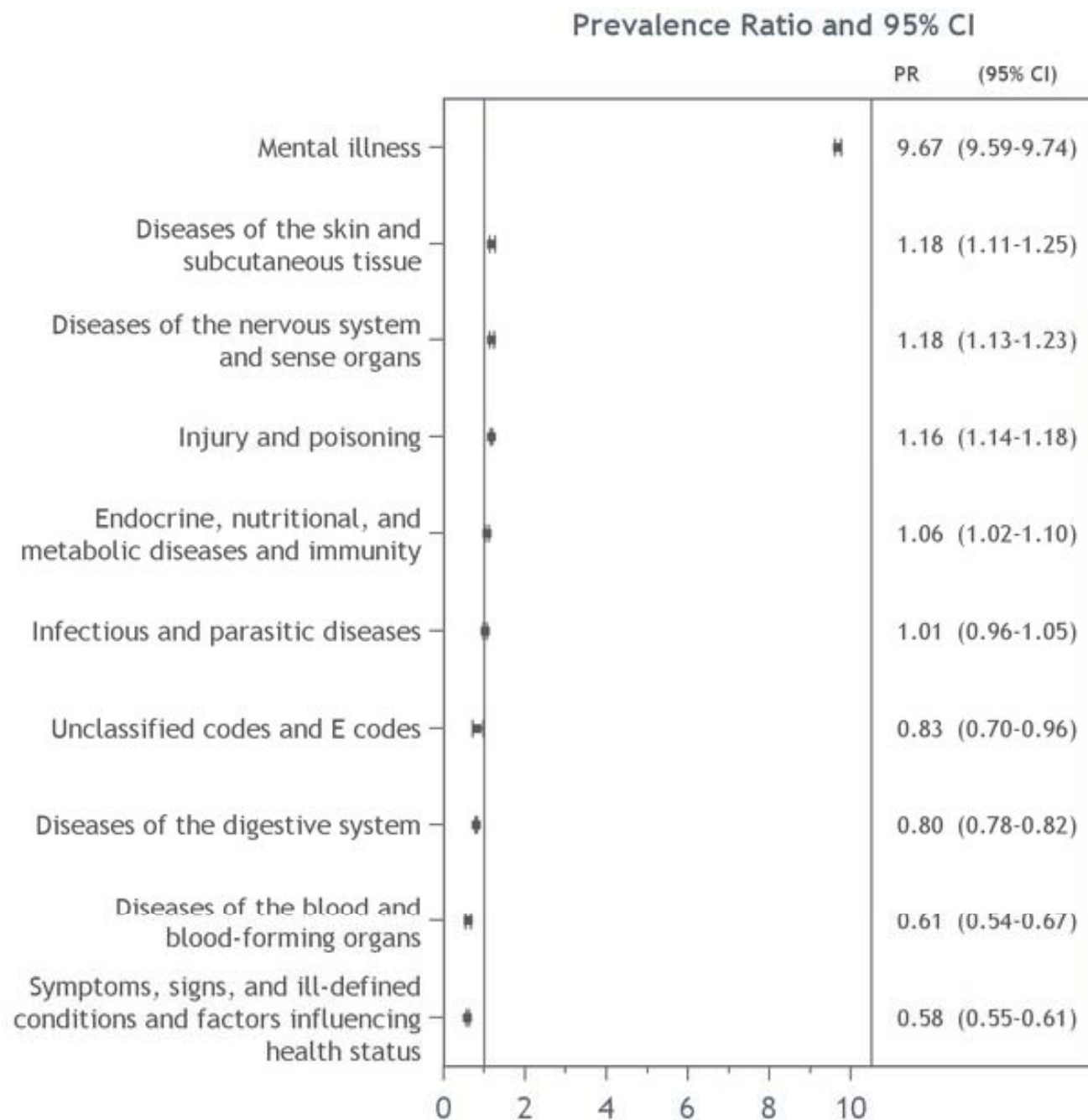
Adverse effects



(Ashton 1999, Hall and Solowij 1998, Handbook on Cannabis 2015)

AE lead to Hospitalization





Top-ten
primary Dx
among
hospitalizations

Conclusion

- Evidence
 - Tx can be complicated → Weak, **X** 1st line **X**, add on Tx (↑Placebo, standard med.)
 - Cancer → No evidence support enough for recommend to our patients
 - Dose and Preparation → Variable specific for indications
- DI or inappropriate use → ↑AE → ↑hospitalization and ↑mortality

5 mins conclusion

- Evidence
 - Tx can be complicated → Weak, **X** 1st line **X**, add on Tx (↑Placebo, standard med.)
 - Cancer → No evidence support enough for recommend to our patients
 - Dose and Preparation → Varies specific for indications
- DI or inappropriate use → ↑AE → ↑hospitalization and ↑mortality

ชื่อน้ำมันกัญชา

ค้นหา



🔍 ทั้งหมด

🖼️ ค้นรูป

📺 วิดีโอ

📄 ข่าวสาร

📍 แผนที่

⋮ เพิ่มเติม

💰 การตั้งค่า

🔧 เครื่องมือ

ผลการค้นหาประมาณ 743,000 รายการ (0.52 วินาที)

ดูชื่อน้ำมันกัญชา

ผู้สนับสนุน ⓘ

BONAJOUR



BONAJOUR น้ำมันจากต้นชา 10...
B799.00



(คุณภาพดี, จัดส่งที่รวดเร็ว) กัญชา...
B1,302.00



แดนเทพยดา
กัญชาไร้เมล็ด
B4,804.00



กัญชายาวิเศษ
B378.00



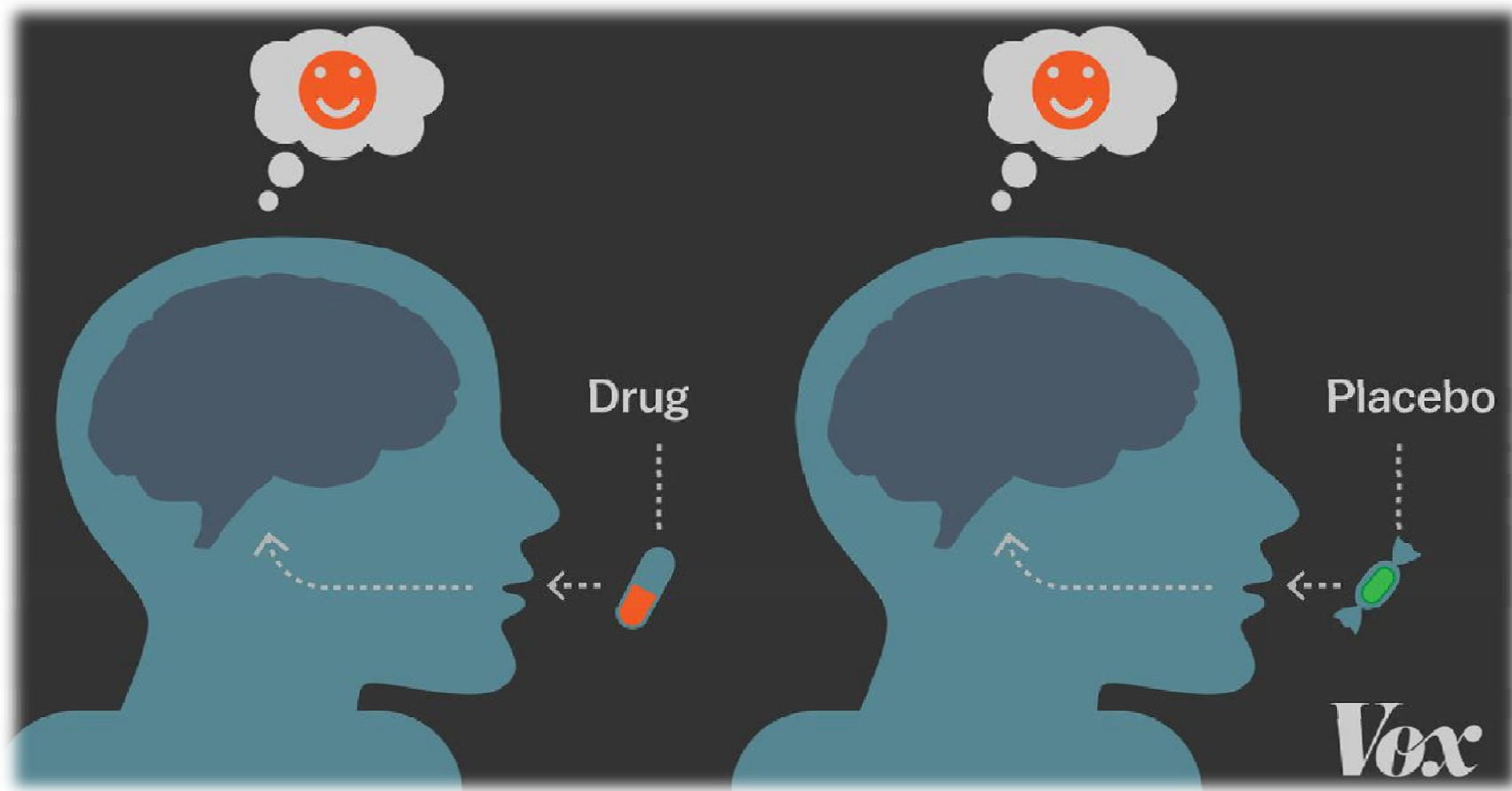
หนังสือสุรียังกัญชา
อัมฤตย์โอสภแห่...
B640.00



➔ ภาพเพิ่มเติมสำหรับ ชื่อน้ำมันกัญชา

🔍 รายงานรูปภาพ

Pill of PLACEBO



สาวใหญ่ช็อกคาบ้าน หยดน้ำมันกัญชาเกินขนาด แพทย์เตือนอย่าซื้อใช้เอง

วันที่ 9 สิงหาคม 2562 - 23:46 น.

Facebook Twitter Google+ LINE



หน้าหลัก > สารานุกรม

เจอแล้ว 7 คนใช้กัญชาเกินขนาด หามเข้าห้องฉุกเฉิน

15:10 | 24 พฤษภาคม 2562 | 5,400



ละคร/ซีรีส์ | กีฬา | รายการทีวี | ข่าว | กิจกรรมพิเศษ | อื่นๆ | LIVE

สาวเมืองอุดรฯ ใช้น้ำมันกัญชาเกินขนาด ช็อกหามส่ง รพ.

โดย PPTV Online
เผยแพร่ 10 ส.ค. 2562, 09:44 น.
ปรับปรุงล่าสุด 10 ส.ค. 2562, 09:45 น.

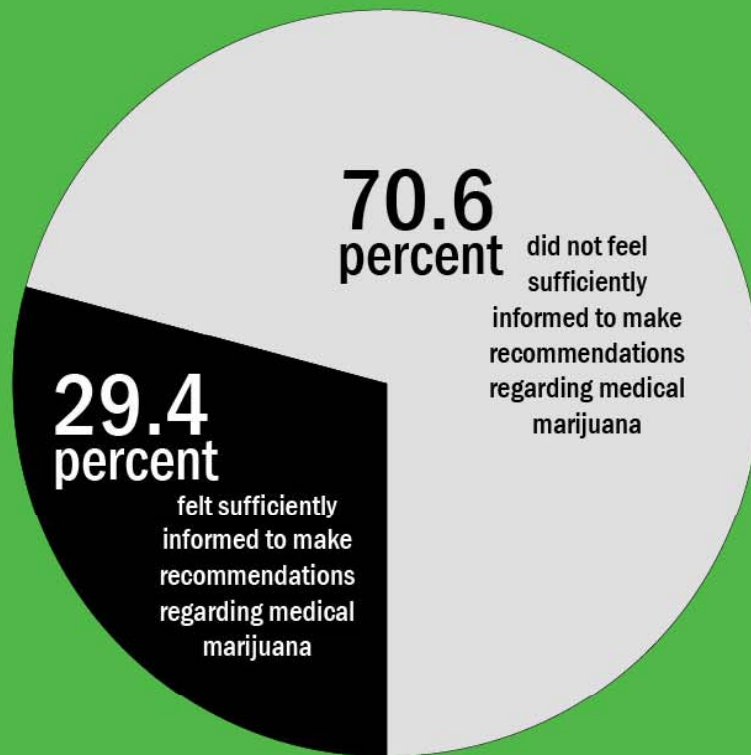
กัญชาทำพิษ ที่ จ.อุดรธานี สาวใหญ่ชาวอำเภอโซ่พิสัย ป่วยเป็นโรคเครียดและซึมเศร้า ยาวต่อเนื่องทำให้ลงน้ำหนักและใช้ส้นเท้า ใช้เกินขนาด ช็อกคาบ้านญาติหามส่งโรงพยาบาล ขณะที่ยังนอนหลับอยู่ที่เตียงนอนอยู่จนกระทั่งญาติมาพบไม่รู้สึกตัวจึงรีบโทรเรียกรถพยาบาล

4.27k

f 0
t 0
w 12
0

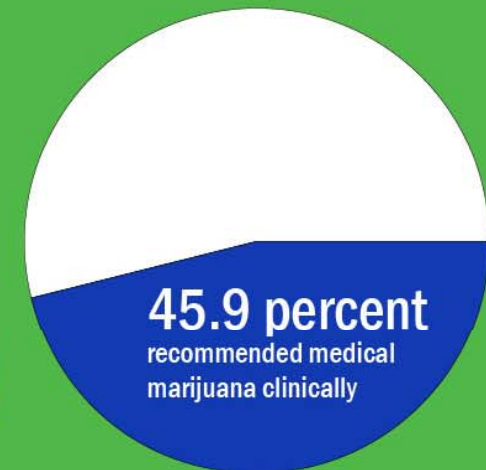
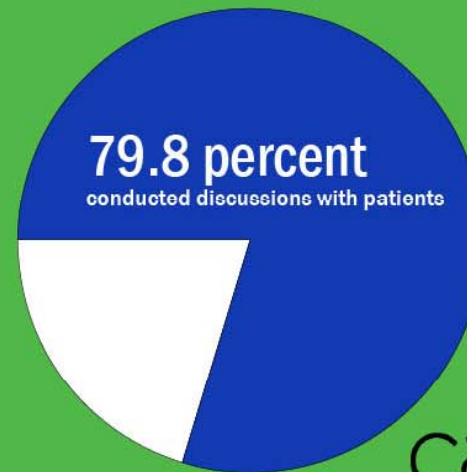


A survey of a nationally representative, random sample of medical oncologists found that...



0 randomized clinical trials of whole plant medical marijuana have been conducted in oncology populations.

Despite this...



cancer**today**

Data from Medical Oncologists' Beliefs, Practices and Knowledge Regarding Marijuana Used Therapeutically: A Nationally-representative Survey Study

Patient counseling



Risk vs benefit
Closely monitoring