

# Koncept i osnove medicine zasnovane na dokazima

**Zarko Alfirevic**

*Professor of Fetal and Maternal Medicine*

*Cochrane Pregnancy and Childbirth Module – Editor*



Liverpool Women's Hospital



University of LIVERPOOL

# Evidence Based Medicine

‘The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients’.

*Sackett et al 1997*

# Provjerbena Medicina

- ‘ Savjesno, jasno i promisljeno korištenje trenutno najboljih dokaza i potvrda za odluke o brizi (lijecenju) individualnog bolesnika.

*Sackett et al 1997*

SECOND EDITION



# EVIDENCE-BASED MEDICINE

How to Practice and Teach EBM

*David L. Sackett  
Sharon E. Straus  
W. Scott Richardson  
William Rosenberg  
R. Brian Haynes*



CHURCHILL LIVINGSTONE

## INTEGRATION OF

- the best research evidence
- our clinical expertise
- patient's unique values and circumstances



# EBM

Edukacija svih nas da se  
prestanemo bojati riječi:

'ne znam'

## How can we actually practice EBM ?

Step 1 - converting the need for information (about prevention, diagnosis, prognosis, therapy, causation) into an answerable question.

## How can we actually practice EBM ?

Step 1 - converting the need for information (about prevention, diagnosis, prognosis, therapy, causation) into an answerable question.

**Vazno pravilo: Pitaj jednostavna pitanja – i to jedno po jedno**

## How can we actually practice EBM ?

Step 2 - tracking down the best evidence with which to answer the question.



RCTs

Cohort  
studies

Case series

Animal research & In vitro studies

## Classification of evidence levels

- Ia Evidence obtained from meta-analysis of randomised controlled trials.
- Ib Evidence obtained from at least one randomised controlled trial.
- IIa Evidence obtained from at least one well-designed controlled study without randomisation.
- IIb Evidence obtained from at least one other type of well-designed quasi-experimental study.
- III Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.
- IV Evidence obtained from expert committee reports or opinions and/or clinical experience of respected authorities.

## Grades of recommendations

- A** Requires at least one randomised controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels Ia, Ib)
- B** Requires the availability of well controlled clinical studies but no randomised clinical trials on the topic of recommendations. (Evidence levels IIa, IIb, III)
- C** Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level IV)

## Good practice point

- ✓ Recommended best practice based on the clinical experience of the guideline development group.

## How can we actually practice EBM ?

Step 3 - critically appraising the evidence for its validity (closeness to truth), impact (size of effect), and applicability (usefulness in our clinical practice).

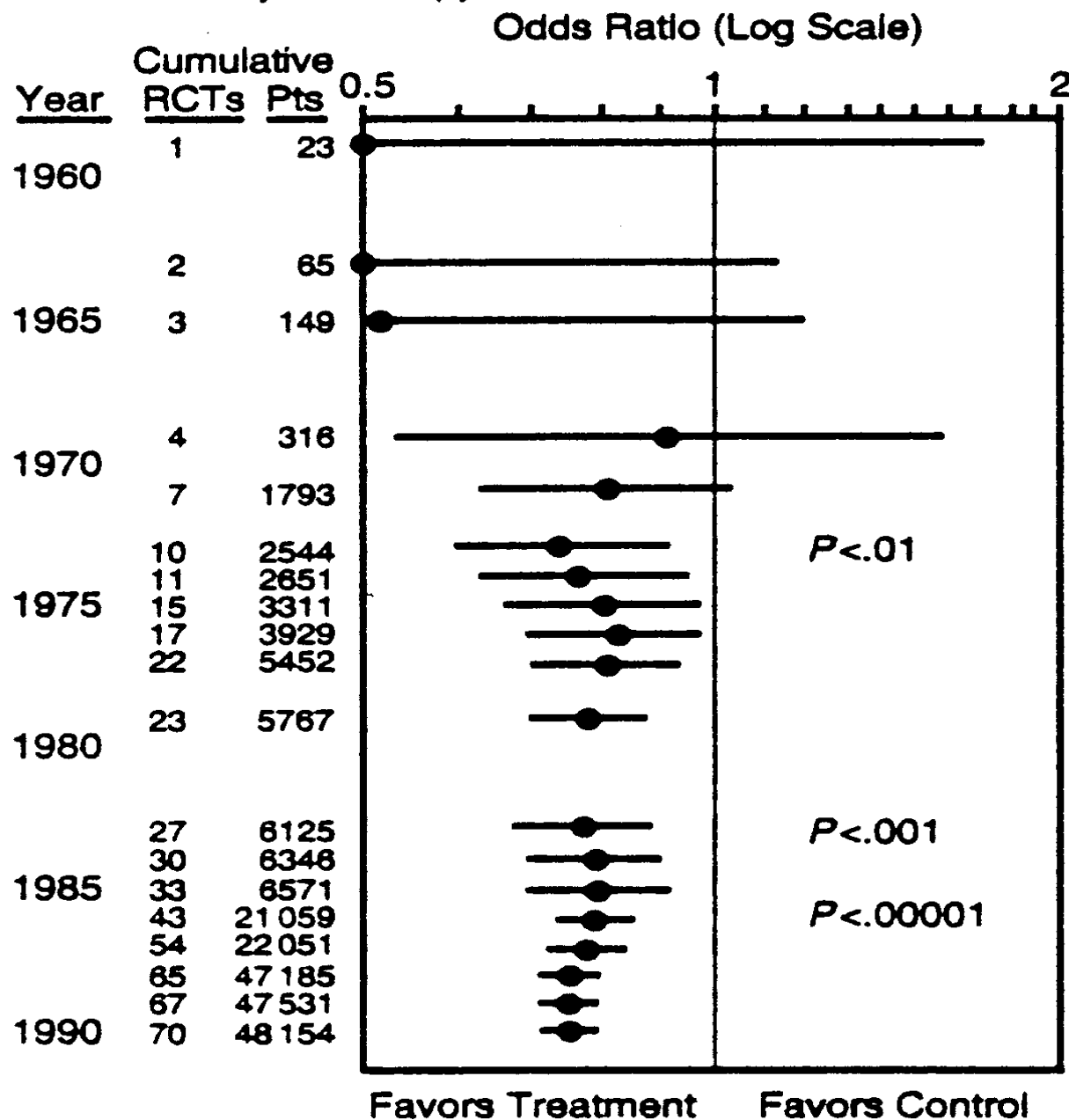
Systematic reviews  
with meta-analysis

- **A comparison of results of meta-analyses of randomised controlled trials and recommendations of clinical experts. Treatments for myocardial infarction.**

- **Antman, Lau, Kuplenick, Mosteller and Chalmers.**

- **JAMA 1992, 268; 240-8.**

# A. Thrombolytic Therapy



## Textbook/Review Recommendations

Routine	Specific	Rare/Never	Experimental	Not Mentioned
				21
				5
			1	10
			1	2
			2	8
				7
				8
	1			12
M	1		8	4
M	1		7	3
M	5	2	2	1
M	15	8		1
M	6	1		

# Interpretacija meta-analize

Studija A

Studija B

Studija C

**Ukupni rezultat**



Terapija bolja  
Kontrola bolja

1

# Interpretacija meta-analize

Studija A

Studija A+B

Studija A+B+C

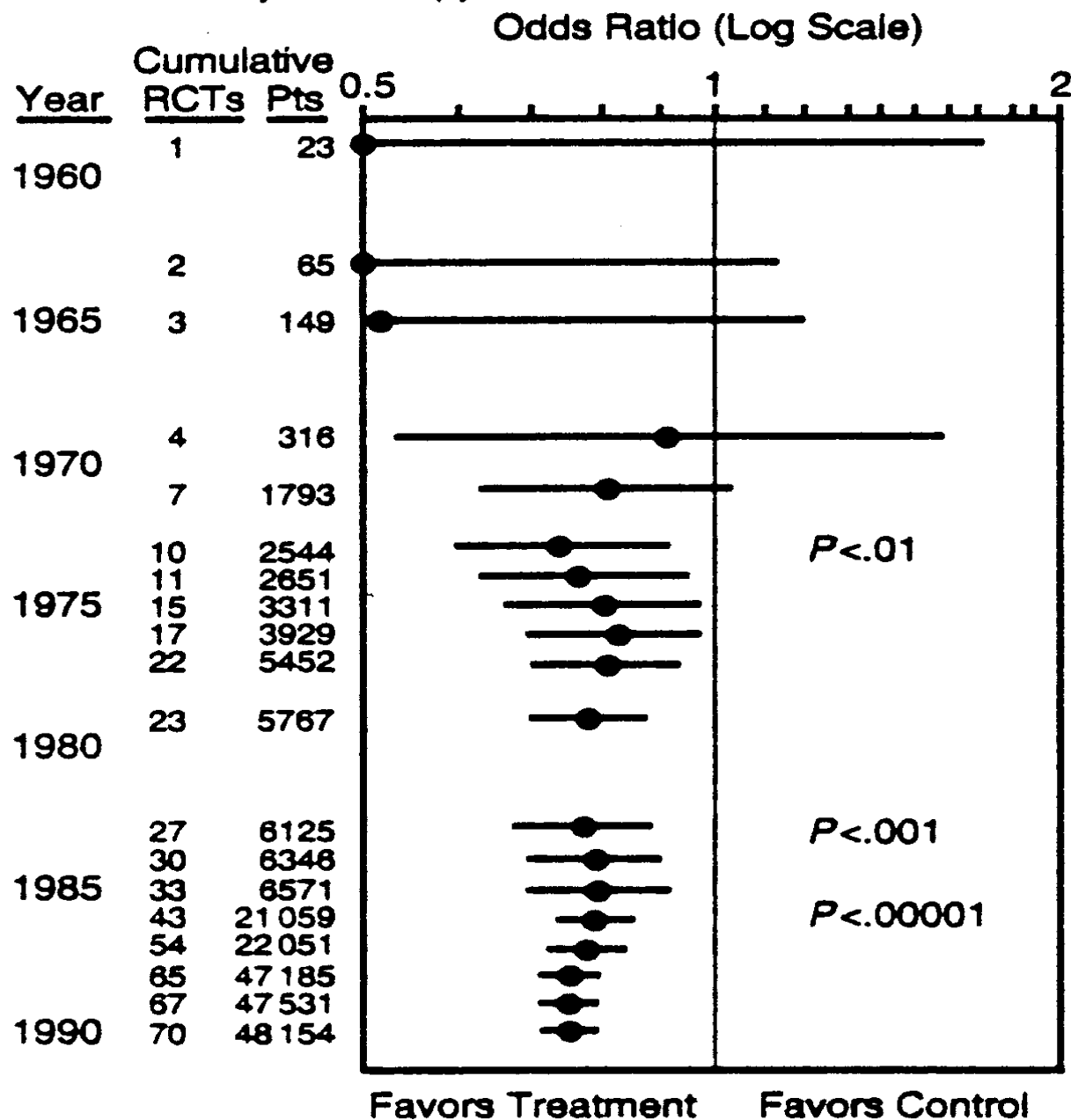
**Ukupni rezultat**



**Terapija bolja  
Kontrola bolja**

**1**

# A. Thrombolytic Therapy



Year

1960

1965

1970

1975

1980

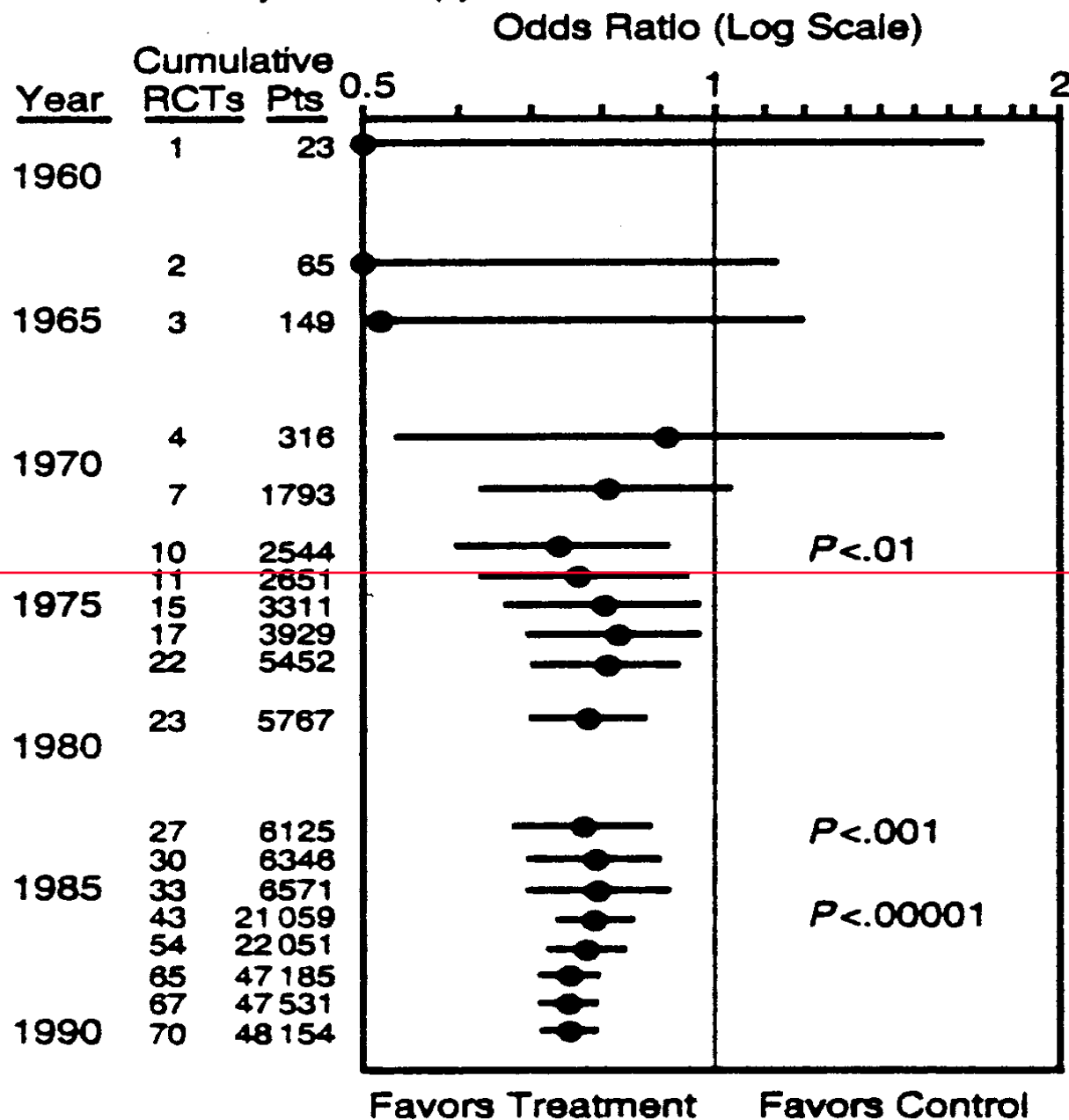
1985

1990

Textbook/Review  
Recommendations

	Routine	Specific	Rare/Never	Experimental	Not Mentioned
					21
					5
				1	10
				1	2
				2	8
					7
					8
		1			12
M		1		8	4
M		1		7	3
M	5	2		2	1
M	15	8			1
M	6	1			

# A. Thrombolytic Therapy



## Textbook/Review Recommendations

	Routine	Specific	Rare/Never	Experimental	Not Mentioned
					21
					5
				1	10
				1	2
				2	8
					7
					8
		1			12
M		1		8	4
M		1		7	3
M					
M	5	2		2	1
M	15	8			1
M	6	1			

# How can we actually practice EBM ?

Step 4 - integrating the critical appraisal with our clinical expertise and with our patient's unique biology, values and circumstances.

# Ginekologija i porodništvo u Liverpoolu i Zagrebu

---

Sličnosti, razlike i uloga provjerbene medicine

**Zarko Alfirevic**

Liverpool Women's Hospital

**Liverpool**

**Petrova**

---

Porodi	6,000	5,000
Tercijarni referalni centar	Da	Da
Medicinski studenti	310	250
Nadsluzba	12	11
Specijalisti	0	19
Specijalizanti	35	46
Babice	200	20

---

# Ginekologija

Liverpool

Petrova

Spirala sa levonogestrelom cesto

nikad

Resekcija endometrija cesto

rijetko

Resekcija septuma vrlo rijetko

cesto

CIN III LLETZ

konizacija

Dopler u boji nikad

rutinski

Kirurska maska nikad

rutinski

Peritonizacija vrlo rijetko

rutinski

## Opstetricija

Liverpool

Petrova

---

Rutinski UZV nakon 20 tj.	ne	da
Down serum screening	da	ne
Vaginalni pregledi	ne	da
Papa u trudnoci	ne	da
Klizma i brijanje	ne	da
Antibiotici kod carskog reza	da	ne

---

# How can we actually practice EBM ?

Step 1 - converting the need for information (about prevention, diagnosis, prognosis, therapy, causation) into an answerable question.

Step 2 - tracking down the best evidence with which to answer the question.

Step 3 - critically appraising the evidence for its validity (closeness to truth), impact (size of effect), and applicability (usefulness in our clinical practice).

Step 4 - integrating the critical appraisal with our clinical expertise and with our patient's unique biology, values and circumstances.

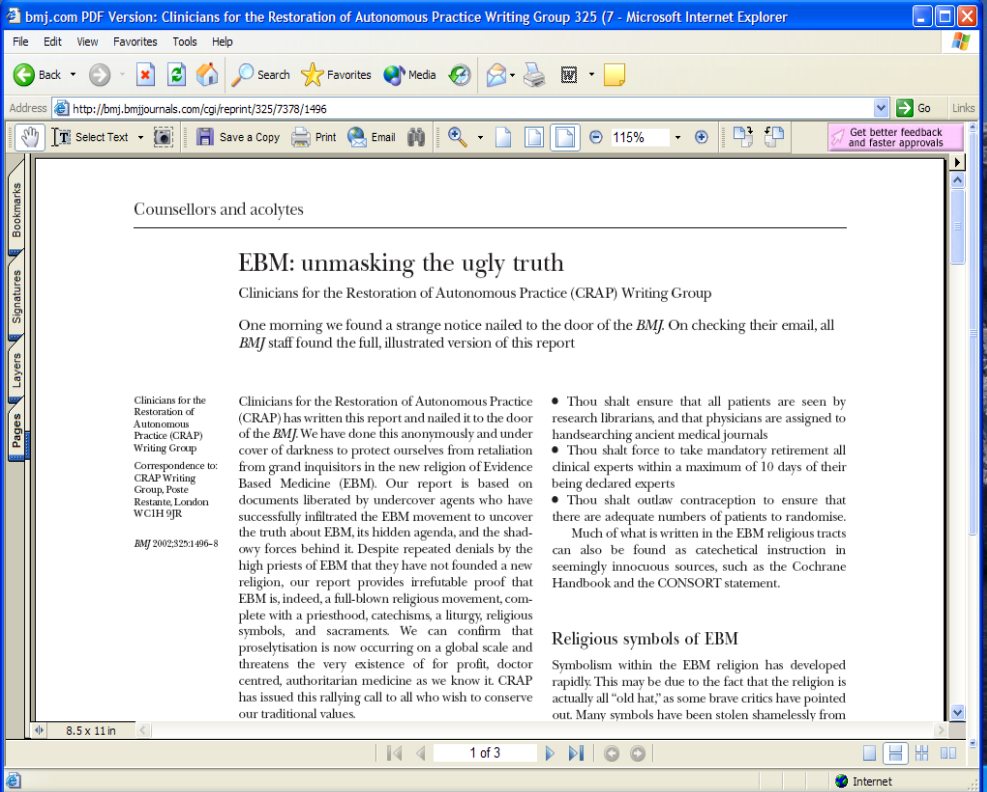
Step 5 - evaluate our ability to execute steps 1-4 and seek ways to improve.

# Provjerbena medicina u praksi

---

- Klinicki problem
- Protokol
- Kriticka evaluacija
- Implementacija
- Analiza ucinka
- Revizija protokola
- Novi ciklus





## EBM Priests and Their Commandments

- You shall treat all patients according to the EBM cookbook, without concern for local circumstances, patients' preferences, or clinical judgment
- You shall put basic scientists to the rack until they repent and promise to randomise all mice, materials, and molecules in their experiments
- You shall neither publish nor read any case reports, and punish those who blaspheme by uttering personal experiences
- You shall force to take mandatory retirement all clinical experts within a maximum of 10 days of their being declared experts







