«consumo di oggetti culturali»
Dietro le quinte dell'evidenza

Roberto Buzzetti

Cartesio e il ***dubbio metodico***

come mezzo per giungere alla verità

e non come fine a se stesso (dubbio scettico),

Dubitare di tutto:

- dei sensi (che ingannano),
- della ragione (che può sbagliare),
- dell'esistenza della materia (nel sogno crediamo che quello che vediamo e sentiamo sia reale),
- delle stesse verità matematiche: un demone maligno e potentissimo avrebbe potuto circondarci di inganni.

NOTA:

Cartesio limita il dubbio al solo dominio speculativo,

“poichè per quanto riguarda la vita pratica, se noi volessimo, prima di agire, aver risolto tutti i nostri dubbi, bene spesso lasceremmo passare l’occasione dell’azione”.

INCERTEZZA

vs

INSICUREZZA

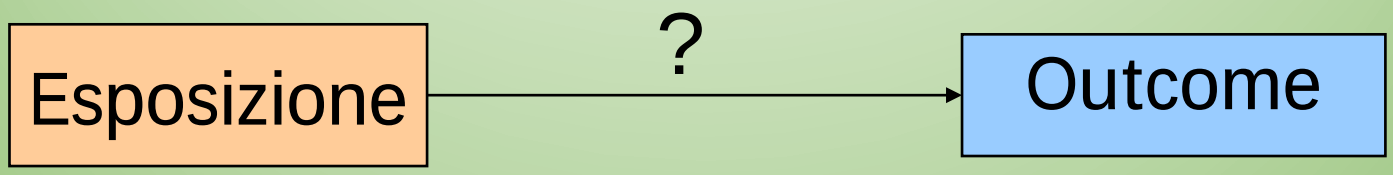
Ma pur dubitando di tutto,

non si può dubitare

di pensare, cioè di esistere:

cogito, ergo sum.

Il modello in epidemiologia



Il passaggio

- Dal determinismo al probabilismo
- Dalle CAUSE ai fattori di rischio

Se è destino…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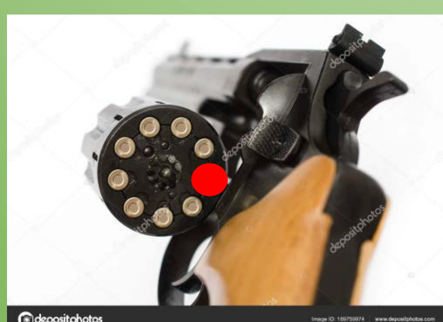
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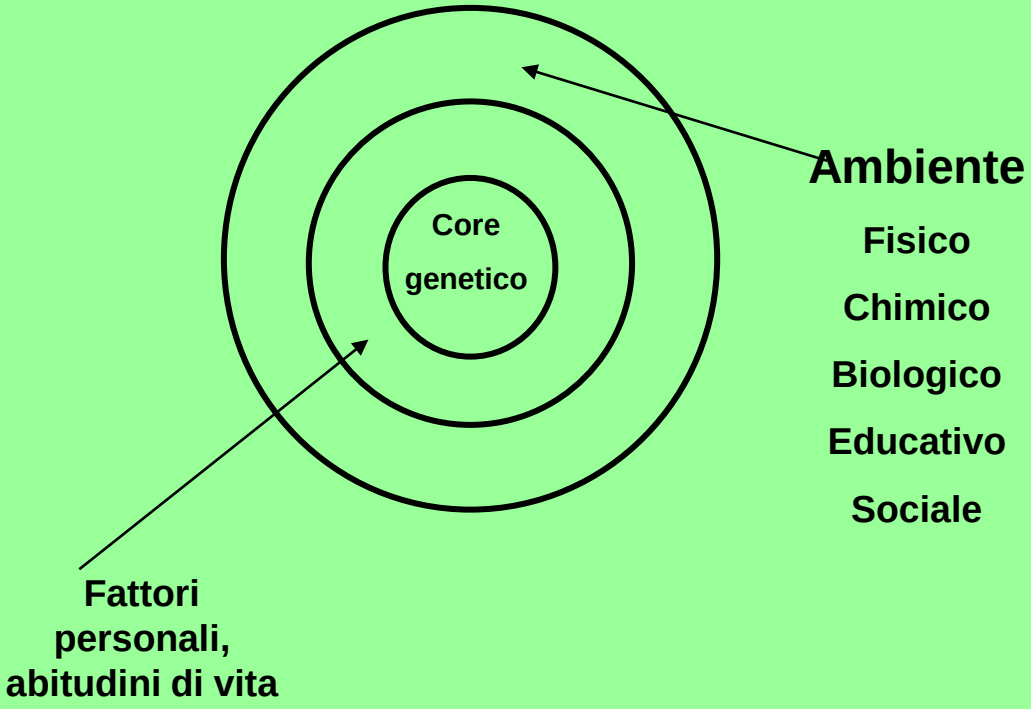
LE ESPOSIZIONI

Da che cosa dipende la salute? Il modello della ruota



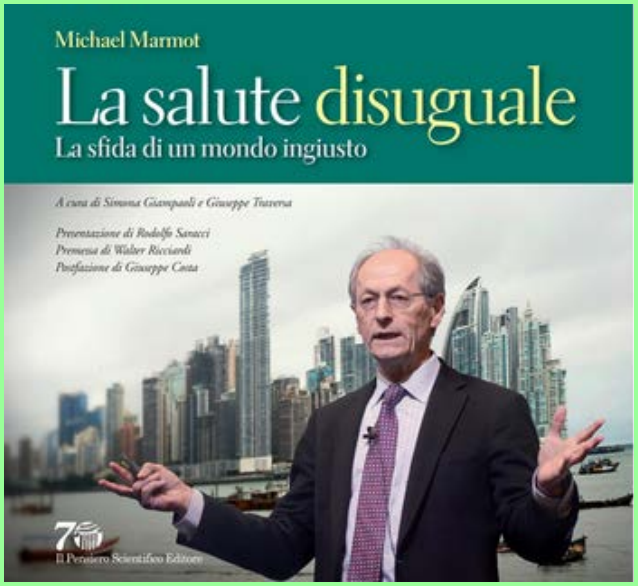
Quante interdipendenze!

Determinanti della salute
Da Wikipedia

- **i fattori socio-economici e gli stili di vita: 40-50%**
- **lo stato e le condizioni dell'ambiente: 20-30%**
- **l'eredità genetica: 20-30%**
- **i servizi sanitari: 10-15%.**

Prerequisiti della salute
Da Wikipedia (OMS)

- *la casa*
- *la pace*
- *l'istruzione*
- *il cibo*
- *il reddito e la continuità delle risorse*
- *la stabilità dell'ecosistema*
- *la giustizia e l'equità sociale*

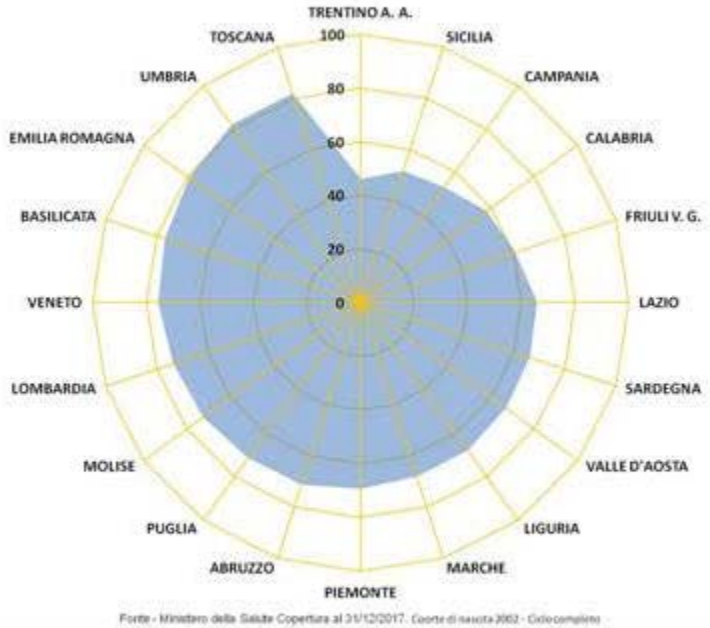


#QUOTA100

Tutte le adolescenti siano vaccinate contro il papilloma virus che causa il tumore della cervice uterina

Solo il 68% delle quindicenni è vaccinato

PAPILLOMA VIRUS



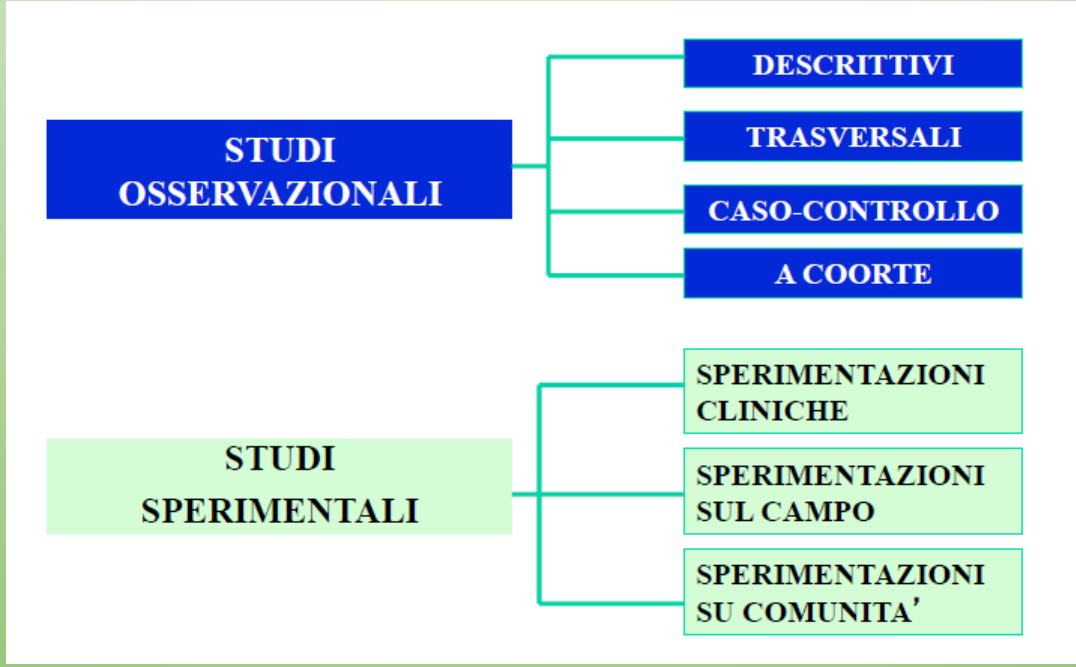
Fonte - Ministero della Salute Copertura al 31/12/2017. Coorte di nascita 2002 - Ciclo completo

QUOTA 100 NON SOLO PER L'USCITA DAL MONDO DEL LAVORO, MA ANCHE PER ENTRARCI CON DIRITTO ED EQUITÀ!

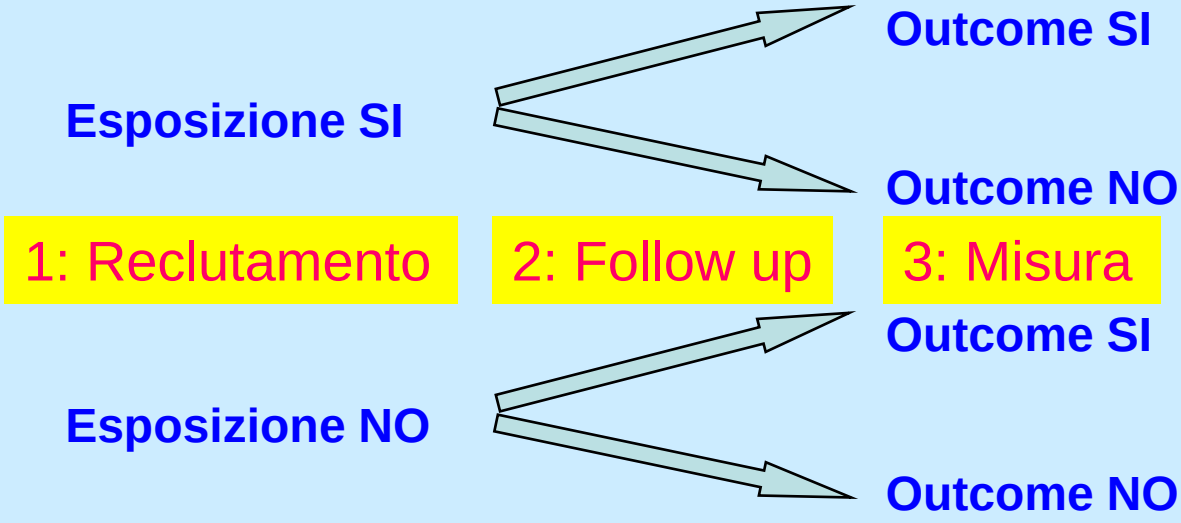
Dipartimento Salute Pubblica

Laboratorio per la Salute Materno Infantile

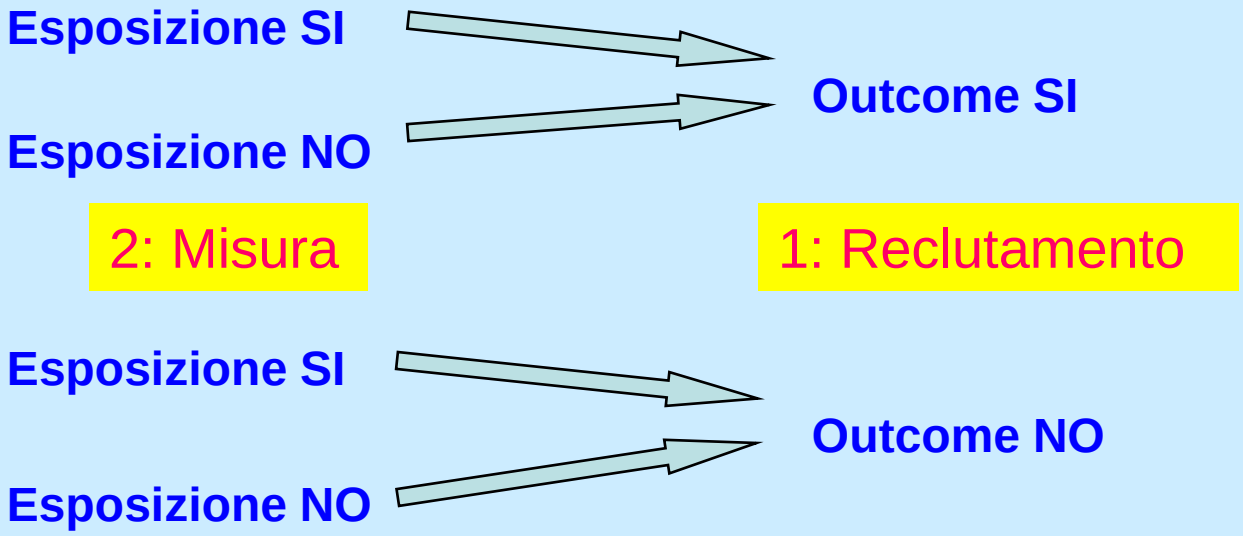
Strumenti d'indagine dell’epidemiologia analitica:

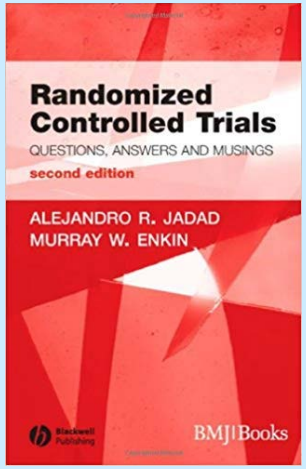


Lo studio di **coorte controllato (studio “esposto-controllo”)**



Lo studio “caso-controllo”





Lo studio **sperimentale controllato (studio "trattato-controllo")**

Trattamento SI

Outcome SI

Outcome NO

1: Reclutamento

2: Follow up

3: Misura

Trattamento NO

Outcome SI

Outcome NO

Fattori di rischio di SIDS

(Sudden Infant Death Syndrome)

REVIEW ARTICLE

Do Pacifiers Reduce the Risk of Sudden Infant Death Syndrome? A Meta-analysis

Fern R. Hauck, MD, MS*‡; Olanrewaju O. Omojokun, MD§; and Mir S. Siadaty, MD, MS‡

ABSTRACT. *Objective.* Pacifier use has been reported to be associated with a reduced risk of sudden infant death syndrome (SIDS), but most countries around the world, including the United States, have been reluctant to recommend the use of pacifiers because of concerns about possible adverse effects. This meta-analysis was undertaken to quantify and evaluate the protective effect of pacifiers against SIDS and to make a recommendation on the use of pacifiers to prevent SIDS.

Methods. We searched the Medline database (January 1966 to May 2004) to collect data on pacifier use and its association with SIDS, morbidity, or other adverse effects. The search strategy included published articles in English with the Medical Subject Headings terms "sudden infant death syndrome" and "pacifier" and the keywords "dummy" and "soother." Combining searches resulted in 384 abstracts, which were all read and evaluated for inclusion. For the meta-analysis, articles with data on the relationship between pacifier use and SIDS risk were limited to published original case-control studies, because no prospective observational reports were found; 9 articles met these criteria. Two independent reviewers evaluated each study on the basis of the 6 criteria developed by the American Academy of Pediatrics Task Force on Infant Positioning and SIDS; in cases of disagreement, a third reviewer evaluated the study, and a consen-

Conclusions. Published case-control studies demonstrate a significant reduced risk of SIDS with pacifier use, particularly when placed for sleep. Encouraging pacifier use is likely to be beneficial on a population-wide basis: 1 SIDS death could be prevented for every 2733 (95% CI: 2416–3334) infants who use a pacifier when placed for sleep (number needed to treat), based on the US SIDS rate and the last-sleep multivariate SOR resulting from this analysis. Therefore, we recommend that pacifiers be offered to infants as a potential method to reduce the risk of SIDS. The pacifier should be offered to the infant when being placed for all sleep episodes, including daytime naps and nighttime sleeps. This is a US Preventive Services Task Force level B strength of recommendation based on the consistency of findings and the likelihood that the beneficial effects will outweigh any potential negative effects. In consideration of potential adverse effects, we recommend pacifier use for infants up to 1 year of age, which includes the peak ages for SIDS risk and the period in which the infant's need for sucking is highest. For breastfed infants, pacifiers should be introduced after breastfeeding has been well established. *Pediatrics* 2005; 116:e716–e723. URL: www.pediatrics.org/cgi/doi/10.1542/peds.2004-2631; *pacifiers, SIDS, risk factors, risk reduction, meta-analytic methods.*

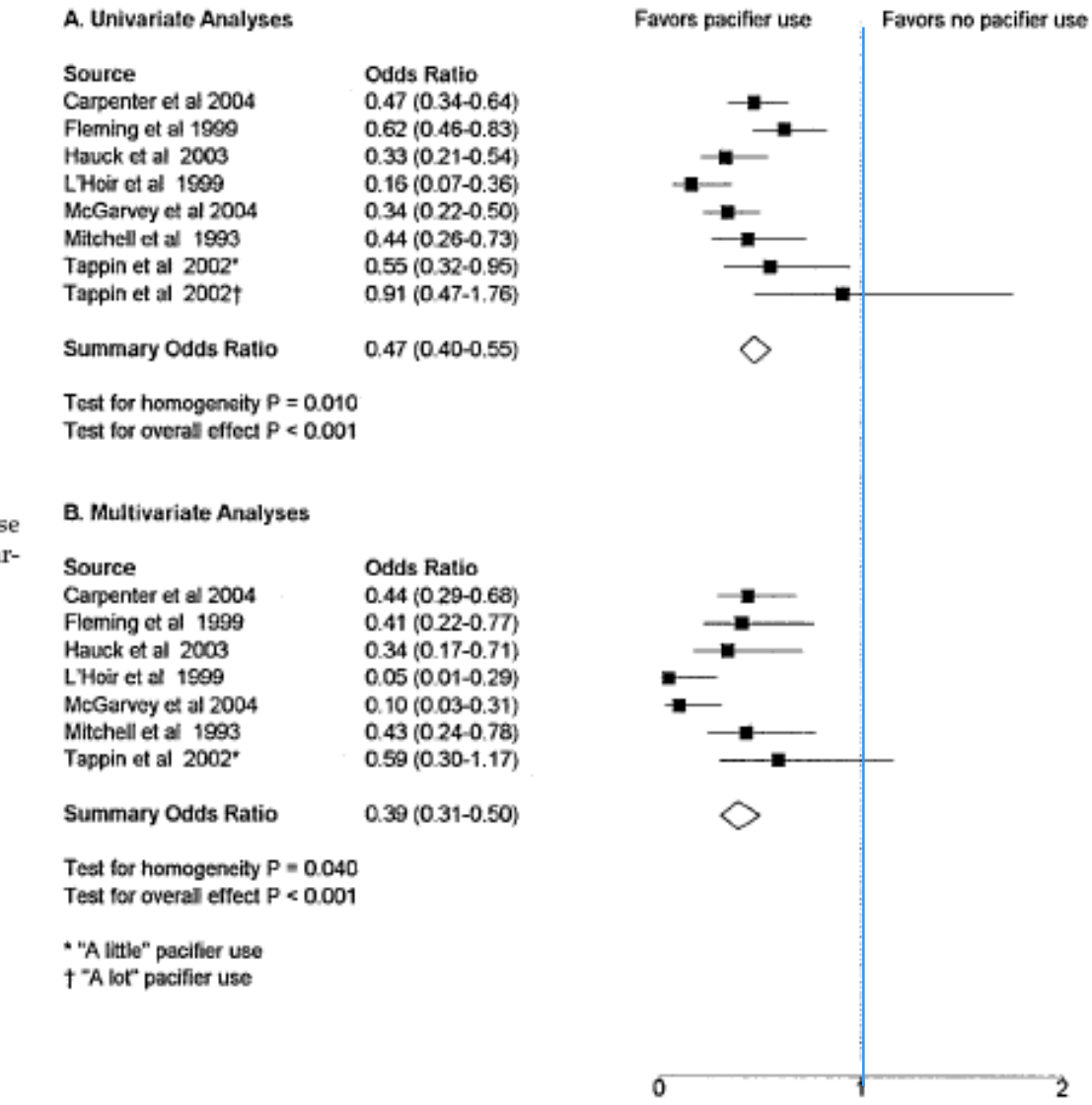
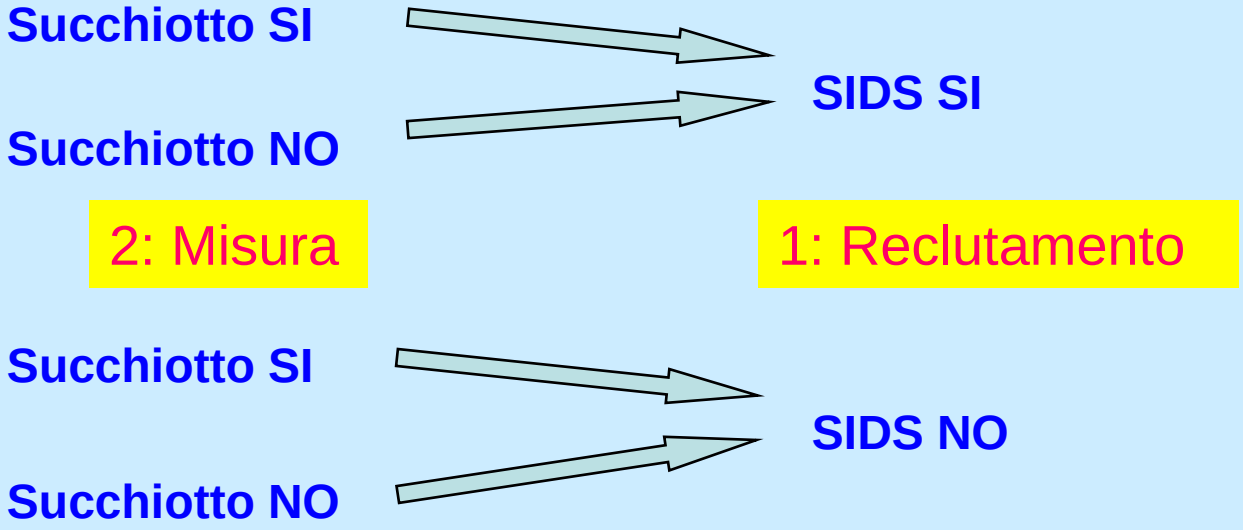


Fig 2. Last/reference-sleep pacifier use and risk of SIDS: univariate and multivariate analyses.

Lo studio “caso-controllo”



To the Editor.—

We would like to comment on the meta-analysis[1] recently published in *Pediatrics* that focuses on the relationship between the use of a pacifier and sudden infant death syndrome (SIDS), as well as the American Academy of Pediatrics policy statement[2] that recommends the use of a pacifier as a possible preventive factor of sudden death.

As previously highlighted,[3] methodologic reasons should advise against giving any value to comparisons based on "last sleep."

Indeed, last sleep is an exclusive feature of a dead infant. An infant who doesn't die cannot experience the "last sleep before dying!" It seems to be quite clumsy to try to surrogate the absence of last sleep in the control group with a poorly convincing "reference sleep" (that is only 1 particular sleep among many and, therefore, should be considered "usual sleep").

In contrast, it would be reasonable to make comparisons based on common exposures (eg, gender, bottle or breastfeeding, parent's smoking, usual sleeping position, bed sharing, pacifier use, etc).

Taking this approach as our inclusion criterion, we found only 5 studies that compared the use of a pacifier in cases versus controls (search was limited to PubMed and English-language articles).

The effect of pacifier use measured in terms of odds ratio (OR) and estimated by using both univariate and multivariate analyses (4 studies; OR was adjusted for different variables across studies) is smaller than that observed for the last sleep, thus suggesting caution when taking last sleep as a valid indicator.

Others elements of concern regard the reliability of the estimates obtained in the primary studies, such as the adjustment for several variables in relatively few subjects (the study with the biggest effect had 73 cases of SIDS) and the recruitment of several controls for each case, which tend to amplify the effect. The lack of an assessment of methodologic quality and the use of fixed models to combine results that do not take into account the high level of observed variability among results should suggest the use of these results with extreme caution.[4]

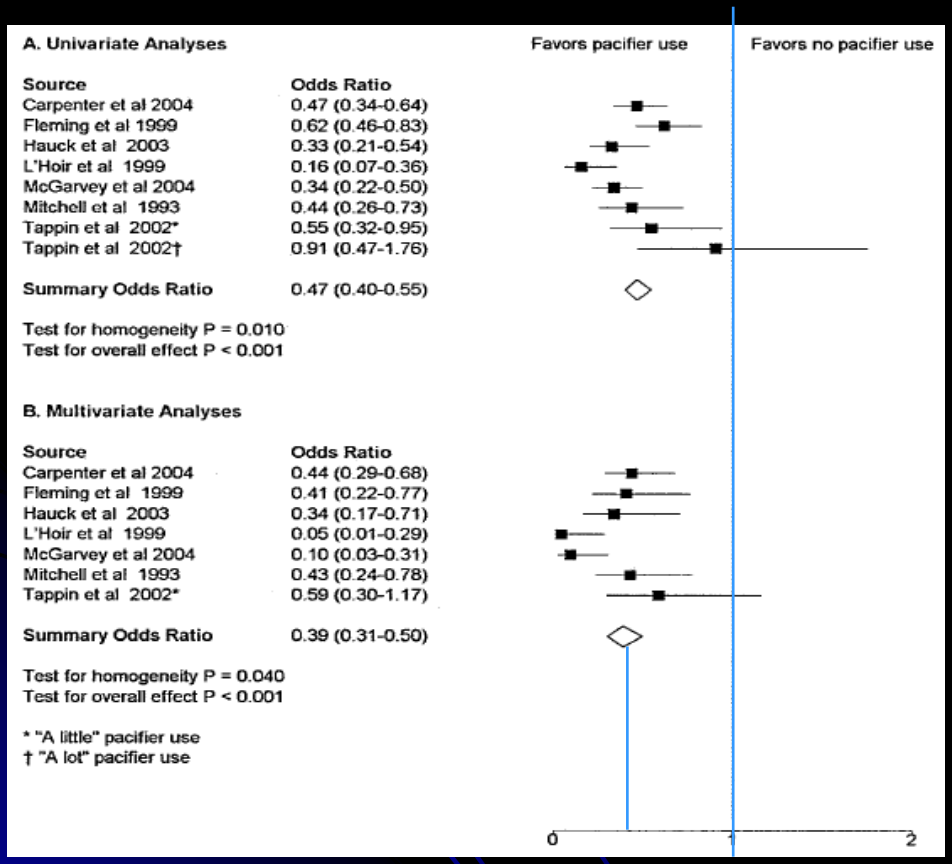
In the absence of clear and strong evidence in support of the use of pacifiers (which could have some adverse effects on breastfeeding), we think it would be more appropriate not to provide any recommendations.

Roberto Buzzetti, MD
Roberto D'Amico, PhD
Policlinico di Modena
University of Modena and Reggio Emilia
41100 Modena, Italy

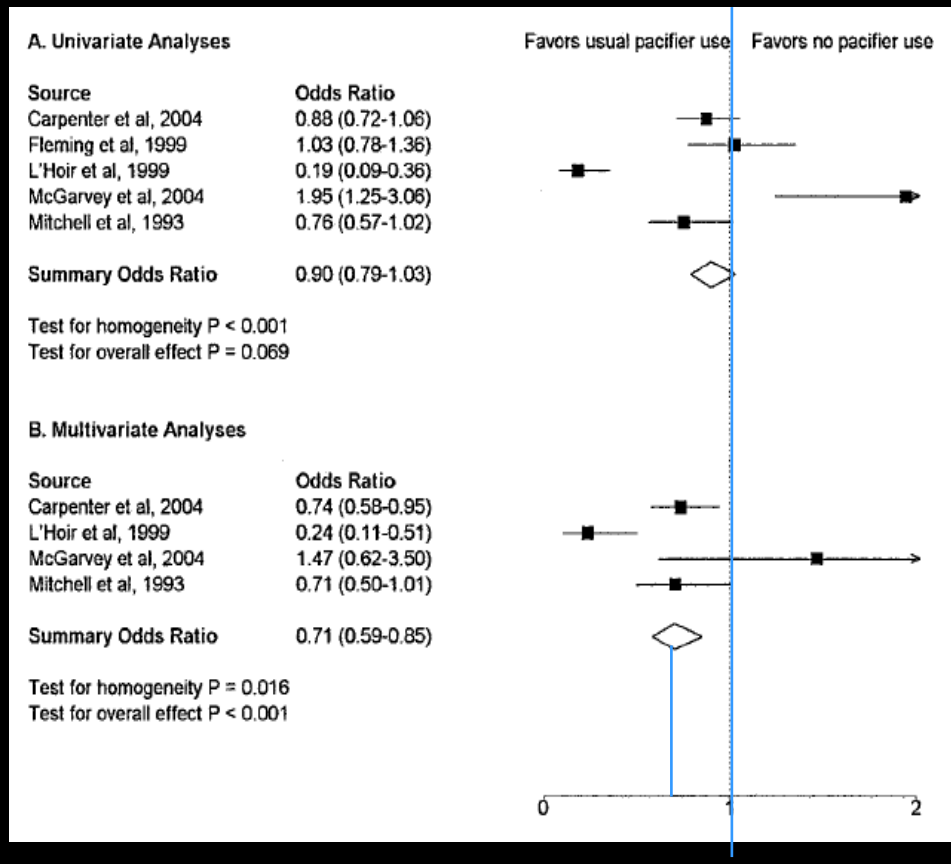
E’ un confronto sensato?

CASI	CONTROLLI
• L’ultimo sonno prima della morte…	• L’ultimo sonno prima dell’intervista

Last sleep



Usual sleep



La risposta di Hauck

Drs. Buzzetti and D'Amico advise against placing value on comparisons based on last sleep, indicating that it is "only one particular sleep among many." However, we would posit that last sleep is the more appropriate sleep period to use. SIDS is believed to be a multi-factorial disorder requiring a set of circumstances to be present. Various factors contribute to the risk of dying from SIDS, and it is therefore logical that some of these factors may change during different sleep periods, based on location of sleep, recent illness, items in the bed, use of pacifiers, sleep position, etc. Thus, proximal or "trigger" factors are likely to be more important in the causal pathway.

Even though it is only the case infant in case-control studies who experienced a "last sleep," matching to a similar sleep period for the control infant provides a random sleep period (for that infant) which should appropriately represent a comparison period. "Usual" sleep does not necessarily describe accurately what happened during the sleep period in which the SIDS death occurred. As an example to illustrate this point, if someone is injured in a car accident, it is important to know if he was wearing his seat belt for that car trip, not for "usual" car trips.

Seguiamo il suo ragionamento…

CASI **Persone decedute in incidente stradale**

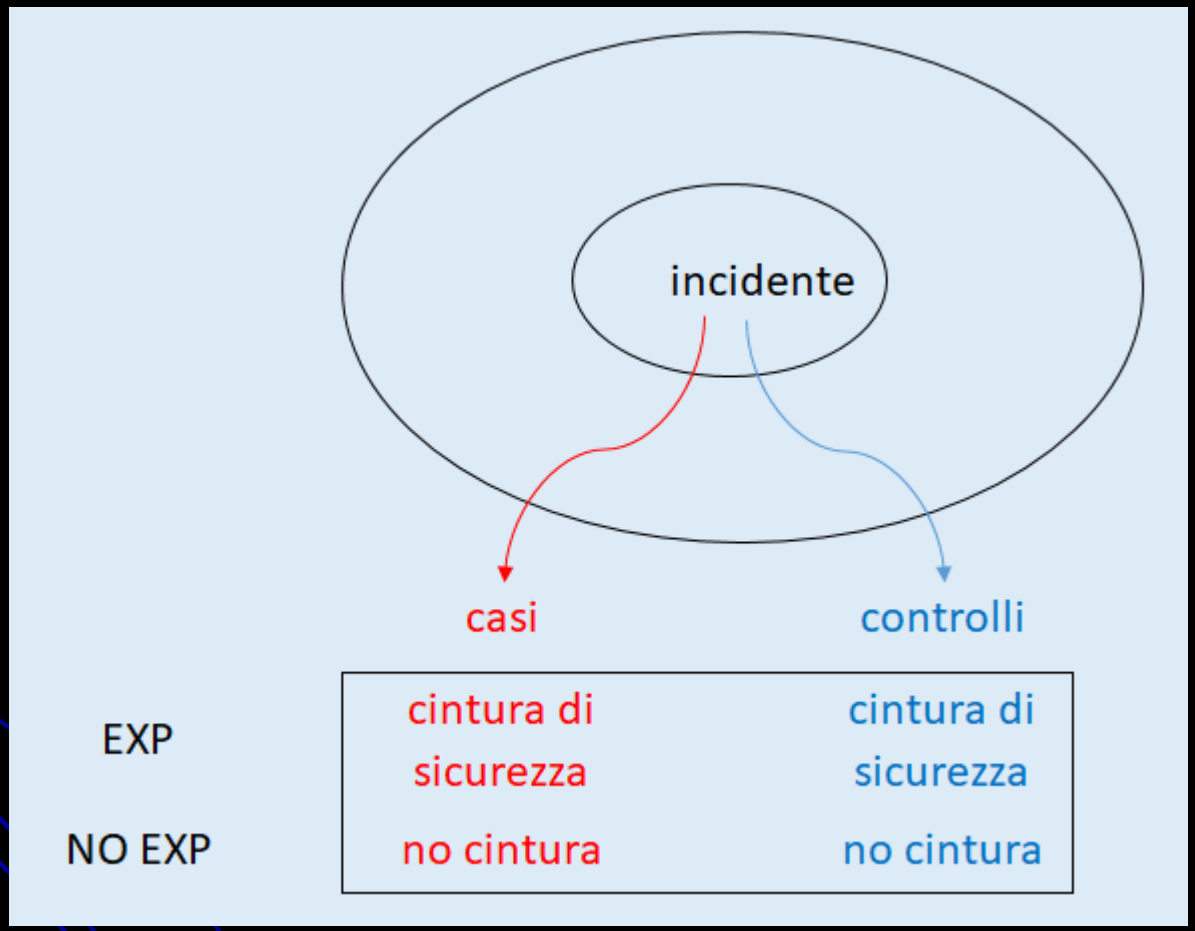
Misura dell'esposizione: quanti avevano la cintura di sicurezza?

CONTROLLI **Persone NON decedute in incidente stradale**

Misura dell'esposizione: quanti avevano la cintura di sicurezza?

Ma l'incidente devono averlo avuto!

(non prendo come controlli gente senza incidente)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no cintura

Seguiamo il suo ragionamento…

CASI **Lattanti deceduti (SIDS)**

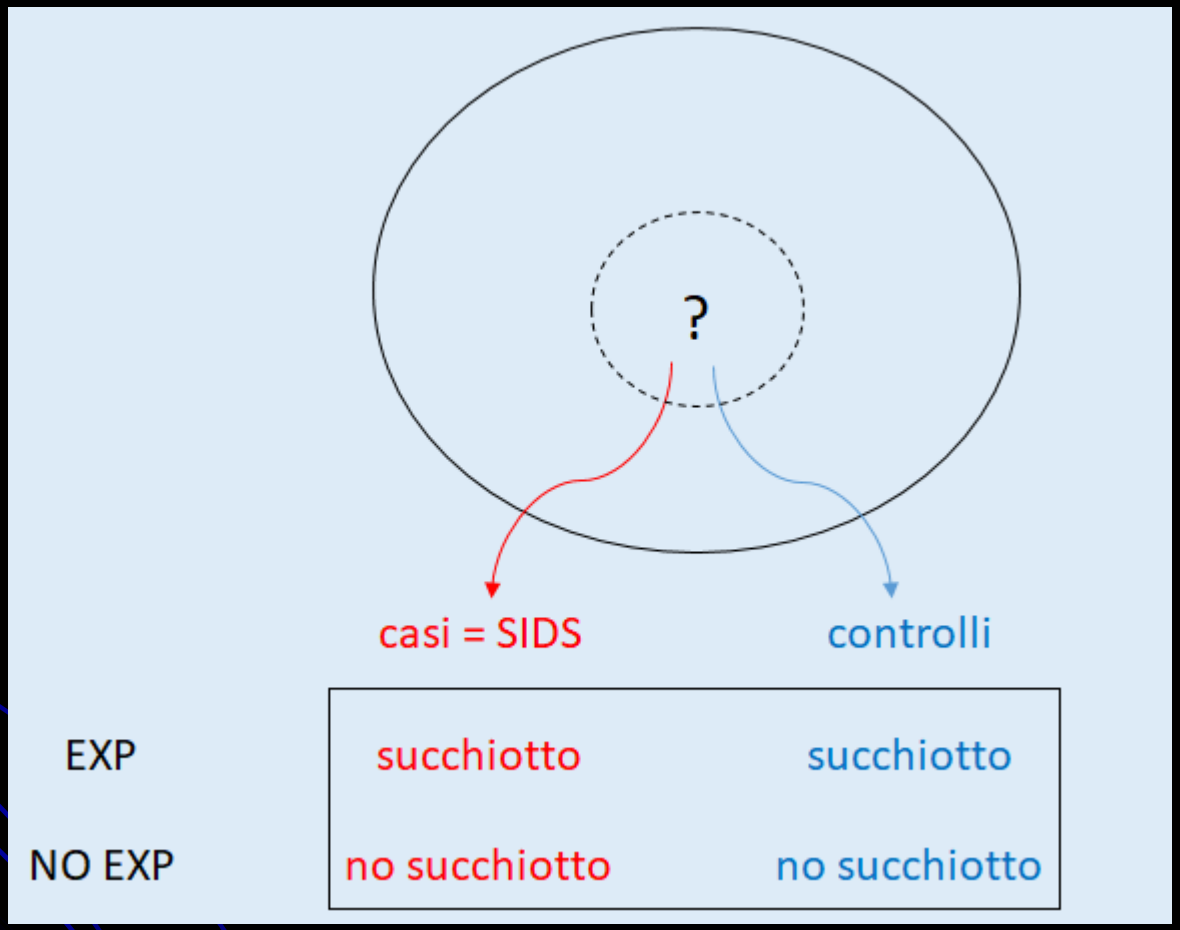
Misura dell'esposizione: quanti avevano il succhiotto?

CONTROLLI **Lattanti NON deceduti**

Misura dell'esposizione: quanti avevano il succhiotto?

Ma qual è l'incidente

(evento scatenante) ???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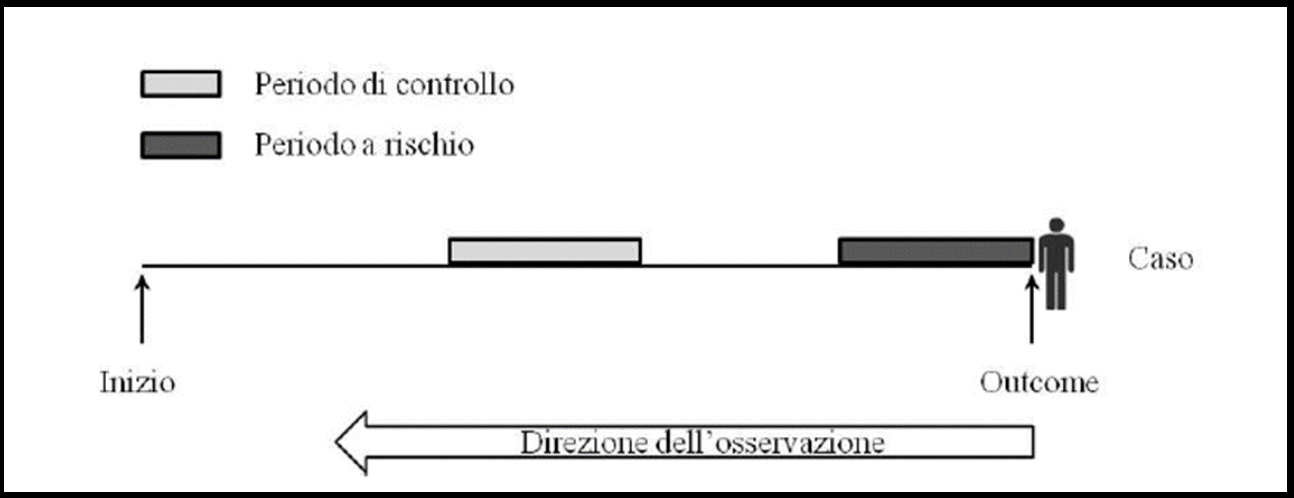
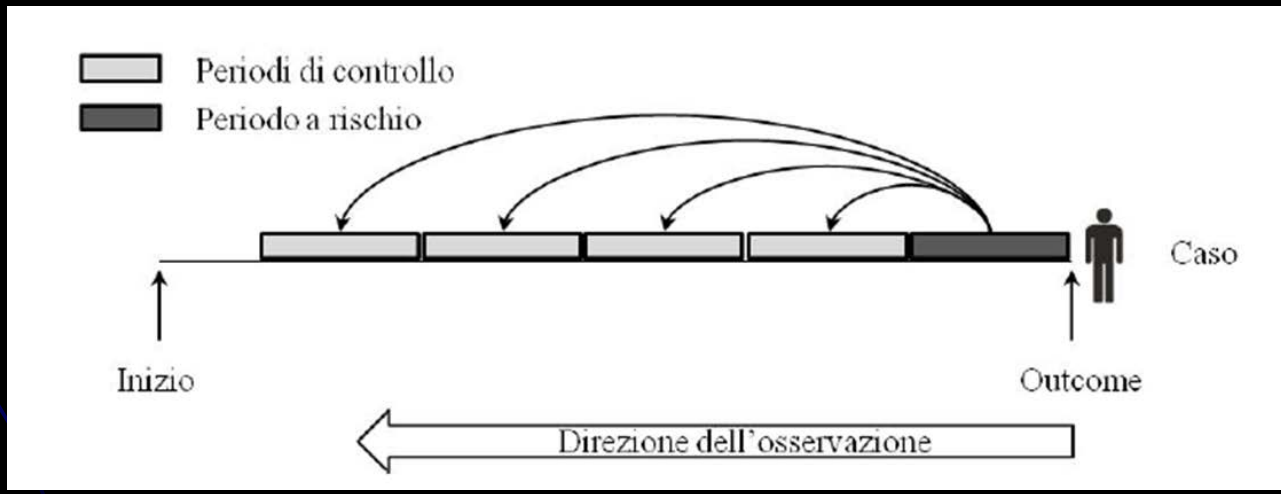
Un'idea (case-crossover study)…





The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 AUGUST 9, 2018 VOL. 379 NO. 6

Labor Induction versus Expectant Management in Low-Risk Nulliparous Women

William A. Grobman, M.D., Madeline M. Rice, Ph.D., Uma M. Reddy, M.D., M.P.H., Alan T.N. Tita, M.D., Ph.D., Robert M. Silver, M.D., Gail Mallett, R.N., M.S., C.C.R.C., Kim Hill, R.N., B.S.N., Elizabeth A. Thom, Ph.D., Yasser Y. El-Sayed, M.D., Annette Perez-Delboy, M.D., Dwight J. Rouse, M.D., George R. Saade, M.D., Kim A. Boggess, M.D., Suneet P. Chauhan, M.D., Jay D. Iams, M.D., Edward K. Chien, M.D., Brian M. Casey, M.D., Ronald S. Gibbs, M.D., Sindhu K. Srinivas, M.D., M.S.C.E., Geeta K. Swamy, M.D., Hyagriv N. Simhan, M.D., and George A. Macones, M.D., M.S.C.E., for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Maternal–Fetal Medicine Units Network*

Studio ARRIVE (ClinicalTrials.gov: NCT0199990612)

METODI

Studio randomizzato e controllato multicentrico in aperto

donne nullipare a basso rischio,

randomizzate

- all'induzione del travaglio (tra 39 sett 0 gg e 39 e 4 gg)
- o all'attesa.

Outcome primario: outcome composito - morte perinatale o gravi complicazioni neonatali

Principale outcome secondario: parto cesareo.

RISULTATI

Outcome primario

nel 4,3% dei neonati del gruppo induzione

nel 5,4% dei neonati del gruppo attesa

(rischio relativo 0,80; int di conf al 95% da 0,64 a 1,00).

Outcome	Induction Group (N=3059)	Expectant-Management Group (N=3037)	Relative Risk (95% CI)†	P Value‡
	no. (%)			
Primary composite outcome	132 (4.3)	164 (5.4)	0.80 (0.64–1.00)	0.049
Perinatal death	2 (0.1)	3 (0.1)	0.66 (0.12–3.33)	
Respiratory support	91 (3.0)	127 (4.2)	0.71 (0.55–0.93)	
Apgar score ≤3 at 5 min	12 (0.4)	18 (0.6)	0.66 (0.32–1.37)	
Hypoxic–ischemic encephalopathy	14 (0.5)	20 (0.7)	0.70 (0.35–1.37)	
Seizure	11 (0.4)	4 (0.1)	2.74 (0.91–8.12)	
Infection	9 (0.3)	12 (0.4)	0.74 (0.31–1.76)	
Meconium aspiration syndrome	17 (0.6)	26 (0.9)	0.65 (0.35–1.19)	
Birth trauma	14 (0.5)	18 (0.6)	0.77 (0.38–1.55)	
Intracranial or subgaleal hemorrhage	9 (0.3)	7 (0.2)	1.28 (0.48–3.42)	
Hypotension requiring vasopressor support	2 (0.1)	5 (0.2)	0.40 (0.06–1.79)	

* Details regarding the components of the primary perinatal outcome are provided in the Supplementary Appendix.

† Exact confidence intervals are provided for rare outcomes. The widths of the confidence intervals for components of the primary outcome have not been adjusted for multiplicity, so they should not be used to infer definitive effects of the management strategies.

‡ We used a group sequential method to control the type I error with the Lan–DeMets characterization of the O'Brien–Fleming boundary. One interim analysis was performed; in the final analysis of the primary outcome, a two-tailed P value of less than 0.046 was considered to indicate statistical significance. Since the adjustment is minimal, we report the 95% confidence interval for the relative risk.

RISULTATI

Frequenza del parto cesareo

nel 18,6% delle donne del gruppo induzione

nel 22,2% delle donne del gruppo attesa

(rischio relativo, 0,84; 95% CI, da 0,76 a 0,93)

Table 3. Secondary Outcomes.*

Outcome	Induction Group (N=3059)	Expectant-Management Group (N=3037)	Relative Risk (95% CI)	P Value
Maternal				
Cesarean delivery — no. (%)	569 (18.6)	674 (22.2)	0.84 (0.76–0.93)	<0.001‡
Operative vaginal delivery — no. (%)	222 (7.3)	258 (8.5)	0.85 (0.72–1.01)	0.07
Hypertensive disorder of pregnancy — no. (%)	277 (9.1)	427 (14.1)	0.64 (0.56–0.74)	<0.001‡
Chorioamnionitis — no. (%)	407 (13.3)	429 (14.1)	0.94 (0.83–1.07)	0.35
Third-degree or fourth-degree perineal laceration — no. (%)	103 (3.4)	89 (2.9)	1.15 (0.87–1.52)	0.33
Postpartum hemorrhage — no. (%)	142 (4.6)	137 (4.5)	1.03 (0.82–1.29)	0.81
Postpartum infection — no. (%)	50 (1.6)	65 (2.1)	0.76 (0.53–1.10)	0.15
Admission to ICU — no. (%)	4 (0.1)	8 (0.3)	0.50 (0.13–1.55)	0.26
Death — no. (%)	0	0	NA	NA
Median duration of stay in labor and delivery unit (IQR) — hr§	20 (13–28)	14 (9–20)		<0.001‡
Postpartum hospital stay — no. (%)				0.01‡¶
<2 days	322 (10.5)	317 (10.4)		
2 days	2191 (71.6)	2084 (68.6)		
3 days	399 (13.0)	452 (14.9)		
4 days	130 (4.2)	166 (5.5)		
>4 days	17 (0.6)	18 (0.6)		
Median scores on Labor Agentry Scale (IQR)‖				
At 6–96 hr after delivery	168 (148–183)	164 (143–181)		<0.001‡
At 4–8 wk after delivery	176 (157–189)	174 (154–188)		0.01‡
Median labor pain scores (IQR)**				
Worst score	8 (7–10)	9 (8–10)		<0.001‡
Overall score	7 (5–8)	7 (5–9)		<0.001‡

CONCLUSIONI

L'induzione del travaglio a 39 settimane nelle nullipare a basso rischio

non ha portato a una frequenza significativamente inferiore di un outcome perinatale avverso composito,

ma si è osservata una frequenza significativamente inferiore di parto cesareo

(Finanziato dal Kennedy Shriver National Institute of Child Health and Human Development;).

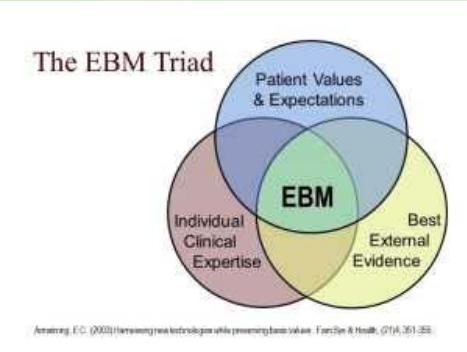
Ricapitolando: ogni 10.000 parti indotti anziché attesi, si avrebbero:

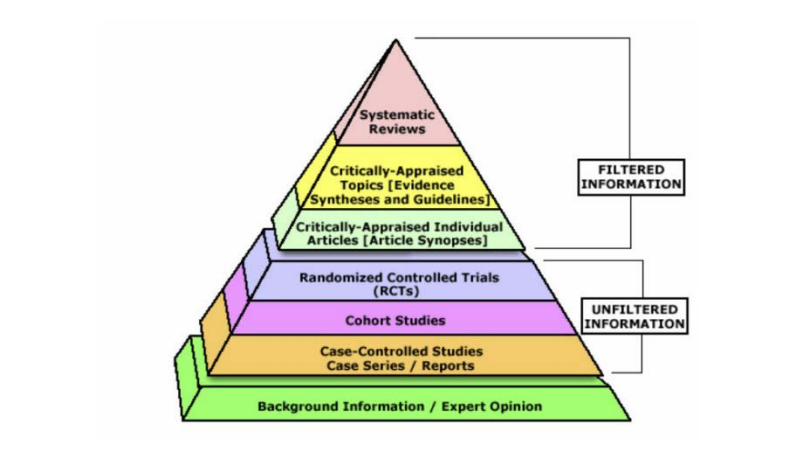
Primary composite outcome	-108
Perinatal death	-3
Respiratory support	-121
Apgar score ≤3 at 5 min	-20
Hypoxic–ischemic encephalopathy	-20
Seizure	23
Infection	-10
Meconium aspiration syndrome	-30
Birth trauma	-14
Intracranial or subgaleal hemorrhage	6
Hypotension requiring vasopressor support	-10

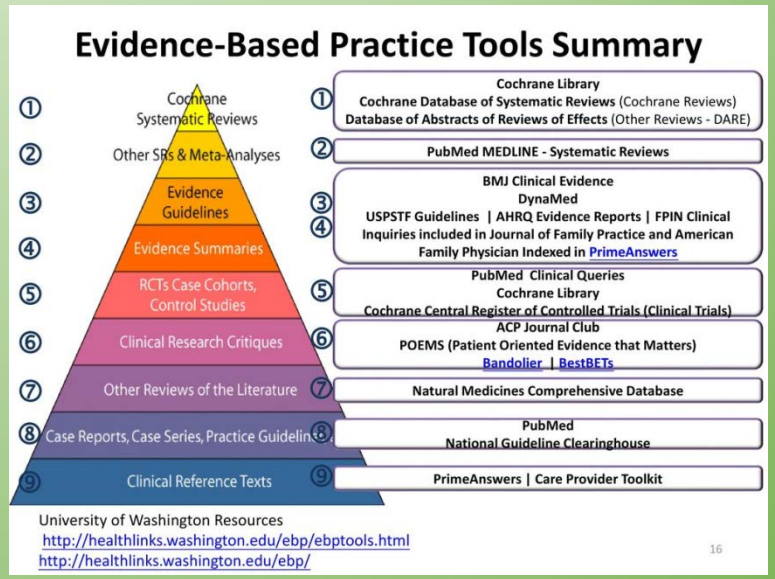
Maternal	
Cesarean delivery — no. (%)	-359
Operative vaginal delivery — no. (%)	-124
Hypertensive disorder of pregnancy — no. (%)	-500
Chorioamnionitis — no. (%)	-82
Third-degree or fourth-degree perineal laceratio — no. (%)	44
Postpartum hemorrhage — no. (%)	13
Postpartum infection — no. (%)	-51
Admission to ICU — no. (%)	-13
Death — no. (%)	0
Median duration of stay in labor and deli (IQR) — hr§	+60.000 h di travaglio
Postpartum hospital stay — no. (%)	-450 gg di degenza
<2 days	9
2 days	300
3 days	-184
4 days	-122
>4 days	-4

Nascita della EBM

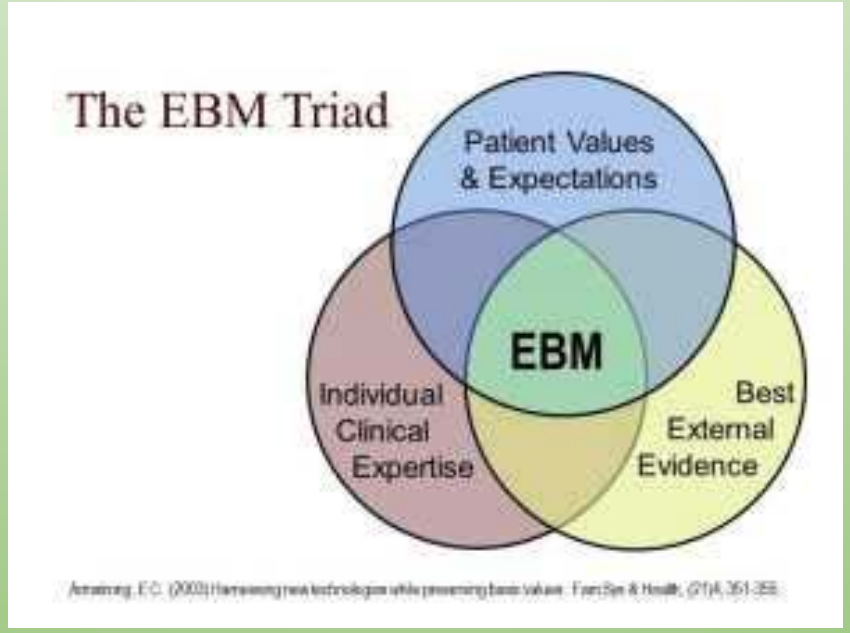
EVIDENCE-BASED MEDICINE







Nascita della EBM

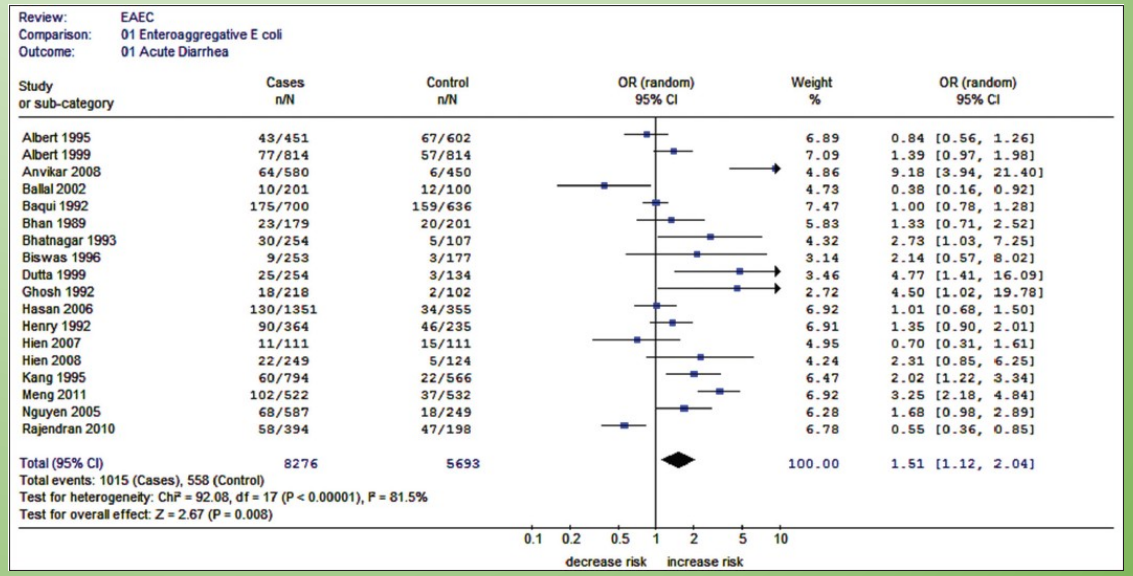


Importanza dell’analisi bibliografica.

«nuove» tecniche:

l'aumentata importanza delle revisioni sistematiche sugli studi primari.

Nuovi metodi analitici, come ad es la metanalisi.



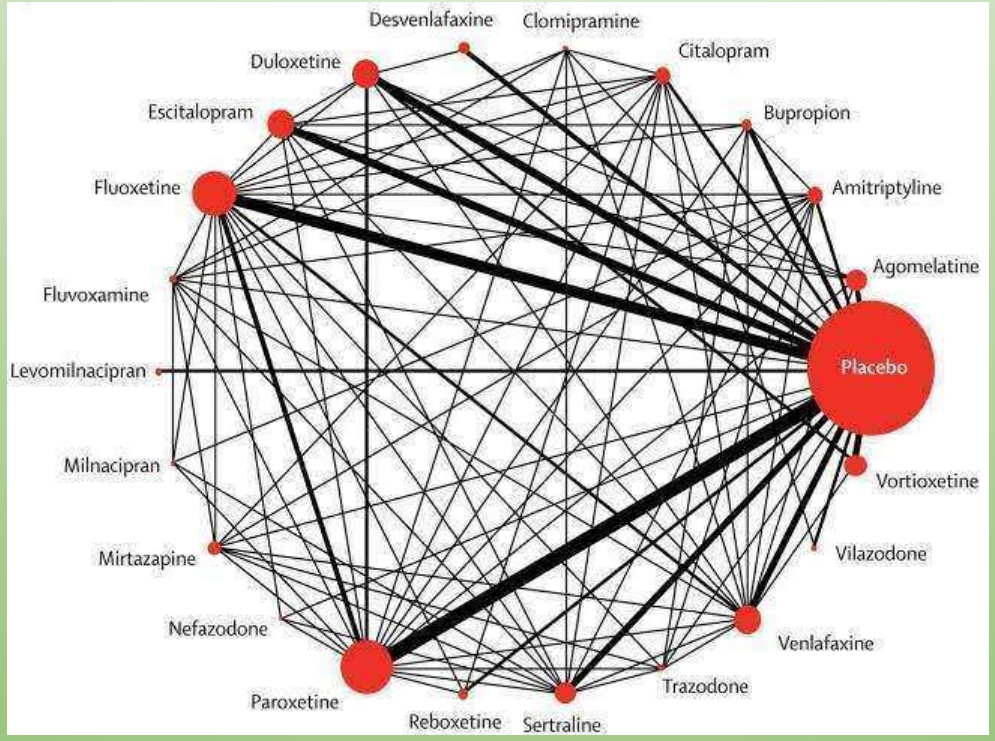
Review: EAEC
Comparison: 01 Enteroaggregative E coli
Outcome: 01 Acute Diarrhea

Study or sub-category	Cases n/N	Control n/N	OR (random) 95% CI	Weight %	OR (random) 95% CI
Albert 1995	43/451	67/602		6.89	0.84 [0.56, 1.26]
Albert 1999	77/814	57/814		7.09	1.39 [0.97, 1.98]
Anvikar 2008	64/580	6/450		4.86	9.18 [3.94, 21.40]
Ballal 2002	10/201	12/100		4.73	0.38 [0.16, 0.92]
Baqui 1992	175/700	159/636		7.47	1.00 [0.78, 1.28]
Bhan 1989	23/179	20/201		5.83	1.33 [0.71, 2.52]
Bhatnagar 1993	30/254	5/107		4.32	2.73 [1.03, 7.25]
Biswas 1996	9/253	3/177		3.14	2.14 [0.57, 8.02]
Dutta 1999	25/254	3/134		3.46	4.77 [1.41, 16.09]
Ghosh 1992	18/218	2/102		2.72	4.50 [1.02, 19.78]
Hasan 2006	130/1351	34/355		6.92	1.01 [0.68, 1.50]
Henry 1992	90/364	46/235		6.91	1.35 [0.90, 2.01]
Hien 2007	11/111	15/111		4.95	0.70 [0.31, 1.61]
Hien 2008	22/249	5/124		4.24	2.31 [0.85, 6.25]
Kang 1995	60/794	22/566		6.47	2.02 [1.22, 3.34]
Meng 2011	102/522	37/532		6.92	3.25 [2.18, 4.84]
Nguyen 2005	68/587	18/249		6.28	1.68 [0.98, 2.89]
Rajendran 2010	58/394	47/198		6.78	0.55 [0.36, 0.85]
Total (95% CI)	8276	5693		100.00	1.51 [1.12, 2.04]

Total events: 1015 (Cases), 558 (Control)
Test for heterogeneity: $Chi^2 = 92.08$, df = 17 ($P < 0.00001$), $I^2 = 81.5\%$
Test for overall effect: $Z = 2.67$ ($P = 0.008$)

0.1 0.2 0.5 1 2 5 10
decrease risk increase risk

- Più recentemente la network metanalysis



Alcune tra le nuove «patologie» della conoscenza

Riviste predatorie

Plagio

Retracting

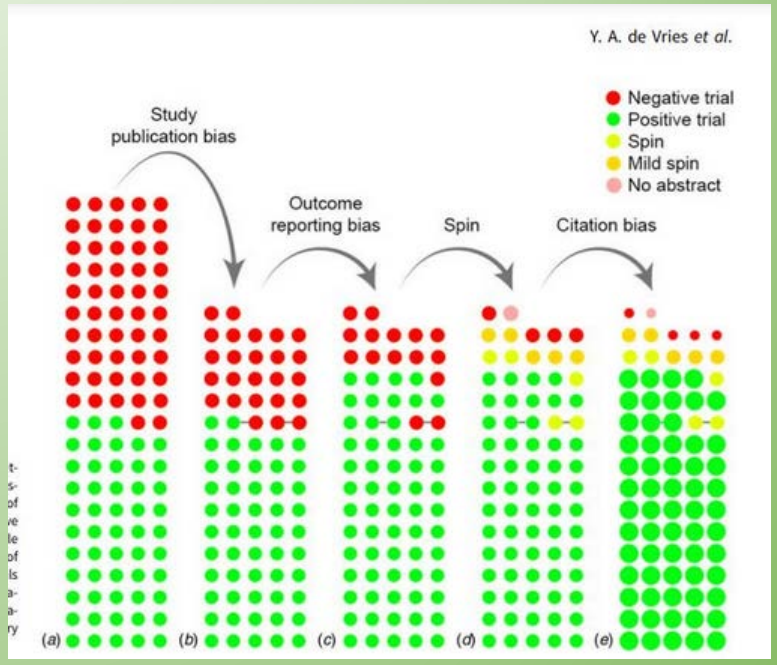
Bias di pubblicazione

Disease mongering

Conflitto di interesse!

bias di pubblicazione

- ***Study publication bias***: "the non-publication of an entire study."
- ***Outcome reporting bias***: "the non-publication of negative outcomes within a published article or to switching the status of (non-significant) primary and (significant) secondary outcomes."
- ***Spin***: "Reporting strategies that could distort the interpretation of results and mislead readers…e.g., instead of concluding that treatment X was not more *effective* than placebo, concluding that treatment X was *well tolerated* and was effective *in patients who had not received prior therapy.*"
- ***Citation bias***: "an obstacle to ensuring that negative findings are discoverable. Studies with positive results receive more citations than negative studies, leading to heightened visibility of positive results."



https://www.madinamerica.com/2018/08/publishing-bias-inflates-perceived-efficacy-depression-treatment-study-finds/

What Is Disease Mongering?

WATCH NOW!

1. **Ordinary processes or ailments as medical problems**
   - Baldness, pregnancy, menopause, aging, infertility
2. **Mild symptoms as serious disease**
   - Irritable bowel syndrome, chronic fatigue syndrome
3. **Personal or social problems as medical ones**
   - Social phobia , criminal behavior, drug dependence, eating disorders, alcoholism
4. **Risks conceptualized as disease**
   - Osteoporosis (reduced bone mass), high blood pressure, high cholesterol
5. **Disease prevalence estimates framed to maximize the size of a medical problem**
   - Erectile dysfunction, female sexual dysfunction, hyperactivity in children/ ADD/ ADHD, PMS/ PMDD (Pre-Menstrual Dysphoric Disorder), depression

Ma è possibile creare “ad arte” una malattia?

- **La storia recente ci insegna di sì**, per esempio
- agendo sui parametri che stabiliscono il confine tra normalità e malattia (è il caso del diabete o dei livelli di colesterolo nel sangue)

evidence
open access journal published by the GIMBE Foundation

Guidelines & Standards

Linee guida per modificare le definizioni di malattia: una checklist

Jenny Doust[1*], Per O. Vandvik[2], Amir Qaseem[3], Reem A. Mustafa[4,5], Andrea R. Horvath[6], Allen Frances[7], Lubna Al-Ansary[8], Patrick Bossuyt[9], Robyn L. Ward[10], Ina Kopp[11], Laragh Gollogly[12], Holger Schunemann[4], Paul Glasziou[1], per il *Guidelines International Network* (G-I-N) *Preventing Overdiagnosis Working Group*

[1]Centre for Research in Evidence Based Practice, Bond University, Australia; [2]Department of Medicine, Innlandet Hospital Trust, Norvegia; [3]Department of Clinical Policy, American College of Physicians, USA; [4]Department of Health Research Methods, Evidence and Impact, McMaster University, Canada; [5]Department of Medicine, McMaster University, Canada; [6]NSW Health Pathology SEALS Department of Clinical Chemistry and Endocrinology, Prince of Wales Hospital, Australia; [7]Duke University, USA; [8]Department of Family and Community Medicine, King Saud University, Arabia Saudita; [9]Department of Clinical Epidemiology and Biostatistics, University of Amsterdam, Paesi Bassi; [10]Brian Wilson Chancellery, University of Queensland, Australia; [11]Association of the Scientific Medical Societies' Institute of Medical Knowledge-Management, Philipps-University, Germania; [12]Department of Strategy, Policy, and Information, Organizzazione Mondiale della Sanità, Svizzera.

Tabella 1. Modifiche alle definizioni di malattia e impatto sulla prevalenza

Malattia/condizione	Popolazione	Definizione precedente	Prevalenza con definizione precedente	Nuova definizione	Prevalenza con nuova definizione
Osteoporosi	Campione di donne statunitensi di età >65 anni[7]	BMD T-score della testa del femore ≤–2.5	21%	Linee guida NOF 2008	72%
Infarto del miocardio	Pazienti con un livello di troponina ≥30 ng/L [8]	Criteri OMS che utilizzano la CPK-MB	18%	Criteri ESC/ACC 2000 che usano la troponina	29%
Sindrome dell’ovaio policistico	Campione di donne cinesi di età 12-44 anni[9]	Criteri del NIH	7%	Criteri di Rotterdam	11%
Pre-diabete	Survey su adulti cinesi di età >18 anni[10]	Alterazione della glicemia a digiuno	26%	Criteri ADA 2010	50%
	Survey NHANES su adulti di età ≥18 anni negli Stati Uniti [11]	Alterazione della glicemia a digiuno	26%	Criteri ADA 2010	31%

Abbreviazioni: ACC, American College of Cardiology; ADA American Diabetes Association; BMD, densità minerale ossea; ESC, European Society of Cardiology; NHANES, National Health and Nutrition Examination Survey; NOF, National Osteoporosis Foundation; OMS, Organizzazione Mondiale della Sanità.

oppure

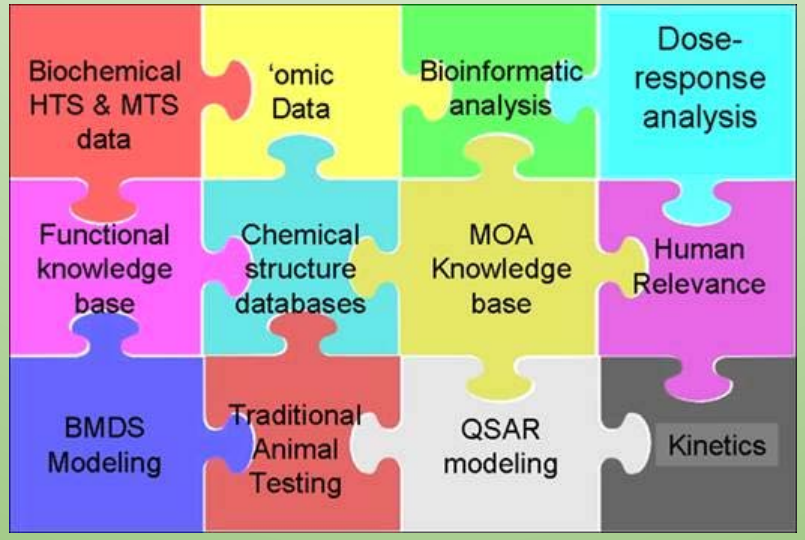
- etichettando come “patologie” condizioni e atteggiamenti che connotano piuttosto
    - tratti di personalità (ansia, timidezza, noia),
    - particolari fasi della vita (menopausa, vecchiaia) o
    - semplici caratteristiche fisiche (calvizie, cellulite).

Disease mongering: qualche esempio celebre

- Crisi di panico e fobia sociale
- Mild cognitive impairment
- Disfunzione sessuale maschile e femminile
- Intestino irritabile
- Fibromialgia...

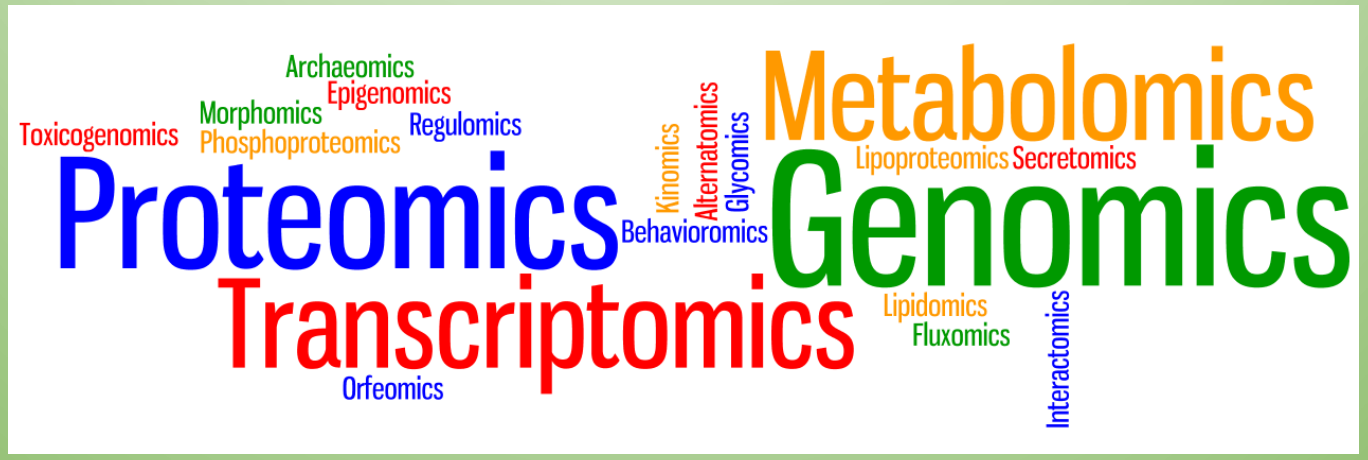
Roberto Satolli

E l'epidemiologia di domani?



E l'epidemiologia di domani?

Le –omiche e i big data

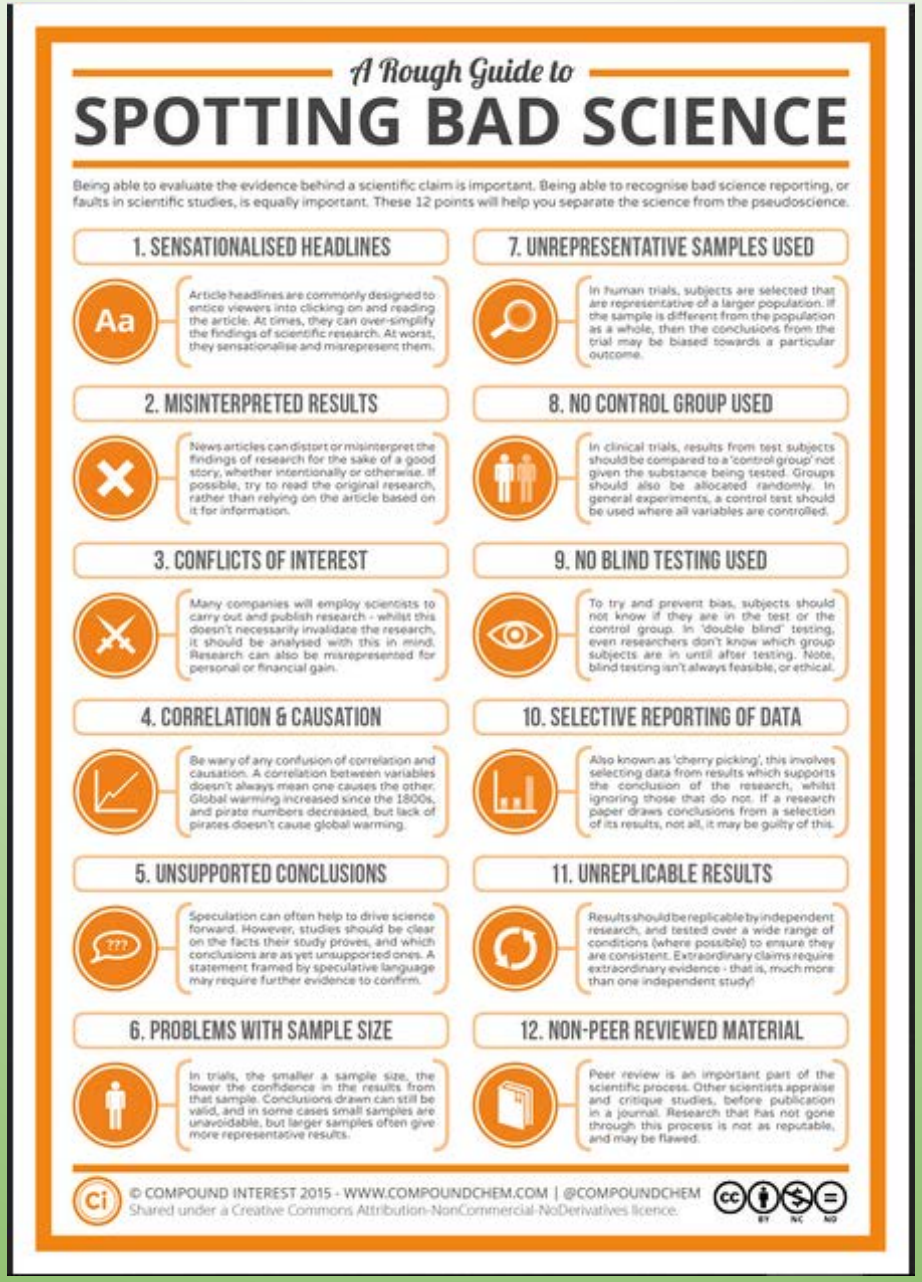


Saracci R. Epidemiology in wonderland: Big data and precision medicine. Eur J Epidemiology 2018; published 5 april 2018.

E l'epidemiologia di domani?

- La «real world evidence»
- La promessa della medicina personalizzata, di precisione:

La saggezza



https://www.compoundchem.com/2014/04/02/a-rough-guide-to-spotting-bad-science/

http://www.troppamedicina.it/10-principi-per-bilanciare-troppa-e-troppa-poca-medicina/

4 NOVEMBRE 2018

10 principi per bilanciare troppa e troppa poca medicina

MARCO BOBBIO // Blog // screening sovradiagnosi // 0

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10 principi per bilanciare troppa e troppa poca medicina

Anche la miracolosa aspirina può essere dannosa

Gli acidi grassi omega-3 non sono utili neanche ai diabetici

Che peccato, il cioccolato non riduce il rischio di infarto

I rischi di un eccesso di prescrizioni

Lo screening dei giovani calciatori riduce le morti o dà solo una falsa tranquillità?

C'è cancro e cancro

Fanno bene i probiotici? Per forza, non conosciamo gli effetti avversi

Non finanziare procedure inutili

Una non-notizia: il robot chirurgico

E’ meglio agitarsi nel dubbio che riposare nell’errore.

Alessandro Manzoni

e allora eccoci, siamo qua
siamo venuti per niente
perché per niente si va
e c'inchiniamo ripetutamente
e ringraziamo infinitamente...