



Reunión de Trabajo
Taller sobre Información Independiente y Uso Racional de Medicamentos
San Salvador, El Salvador
24 y 25 de marzo de 2015
ÁREA TEMÁTICA DE SALUD
MEJORA DE LA EQUIDAD EN LA REFORMA DE LOS SISTEMAS



Información independiente sobre medicamentos

Juan Erviti López

Sección de Información y Asesoría del Medicamento

Servicio Navarro de Salud, España

San Salvador, Marzo 2015



COCHRANE SUMMARIES

Trusted evidence. Informed decisions. Better health.

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Português Русский Español

to Cochrane.org
to The Cochrane Library

Enter words like "aspirin for headaches" or "vaccines for influenza"

Search

Browse health topics | New and updated

A product of The Cochrane Collaboration

How to use this site

Blood pressure targets for the treatment of patients with hypertension and cardiovascular disease

Gorricho J, Garjón J, Celaya MC, Muruzábal L, Montoya R, López Andrés A, Malón Mdm, Saiz LC

Published Online: 31 January 2013

This Cochrane Review is at the protocol stage and there is no abstract or plain language summary. The

Find the research

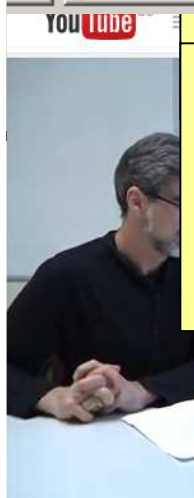


Medicamentos
Cursos formación en

Resúmenes actualidad

International Society of
Drug Bulletins, advocacy
group

Investigación en
medicamentos (3 líneas)



10:41 / 16:49



¿Quién investiga nuevos
medicamentos?



Investigación y desarrollo

El 85% de los nuevos medicamentos: “me too”

Del 15% restante (verdaderas innovaciones), 2/3 los desarrolla el sistema público de EEUU

En EEUU se permite a los investigadores públicos vender la patente de los medicamentos descubiertos (*ley Bayh-Dole*)

Investigación y desarrollo

AZT (SIDA)

National Cancer Institute - Universidad de Duke

Welcome

Paclitaxel (Taxol) (Cáncer)

National Cancer Institute

Bristol-Myers-Squibb

Investigación y desarrollo

Eritropoyetina (EPO) (Enf. renal, cáncer)

National Institutes of Health – Univ. Columbia

Amgen

Imatinib (Glivec) (leucemia mieloide crónica)

Universidad de Portland

Novartis

Investigación y desarrollo

Cerezyme (Enfermedad de Gaucher)

National Institutes of Health

Genzyme. Precio tratamiento paciente-año: 600.000 \$

Enfuvirtida (Fuzeon) (SIDA)

Universidad de Portland

Roche

Investigación y desarrollo


Año 2012. Abiraterona. Institute of Cancer Research. Comprado por Janssen

Cancer drug 'too expensive for NHS'

**PRESS
ASSOCIATION**

Press Association - 7 hours ago

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RELATED CONTENT



A new drug for prostate cancer has been judged to be too expensive to provide on the NHS

A drug hailed as a breakthrough in extending the lives of men with late-stage prostate cancer is too expensive for use on the NHS, a watchdog has said.

Leading cancer experts said the decision regarding abiraterone (also called Zytiga) was "disappointing" and a "huge blow" to patients who have very few treatment options left.

Cancer Research UK said the draft decision by the National Institute for Health and Clinical Excellence (Nice) - which is still open to consultation - made "no sense" and Nice had used the wrong criteria to judge the drug.

Abiraterone was developed by scientists at the Institute of Cancer Research (ICR) and the Royal Marsden in London after the discovery that some prostate cancers can produce their own testosterone.

NHS Foundation Trust !!!

Investigación y desarrollo

Precio de los medicamentos

¿Por qué son tan caros los medicamentos nuevos?

¿Cuánto cuesta desarrollar un nuevo fármaco?

Menos de 100 millones de US \$

Equivalente al gasto del SNS-O en medicamentos en AP durante 6 meses

Marcia Angell. The truth about Drug Companies. How they deceive us and what to do about it. New York: Random House, 2004

Investigación y desarrollo

Precio de los medicamentos

Ejemplo: vorapaxar

Schering Plough vende la patente de vorapaxar a Merck por...

41.000 millones de dólares

Merck espera facturar 8.000 millones \$ / año

El precio tiene poco que ver con la inversión en I+D+i

Limitaciones de la investigación

¿Por qué hay que realizar una lectura crítica de la literatura médica?

Limitaciones de la investigación

No tenemos ninguna garantía de que los datos de los ensayos clínicos sean ciertos

Limitaciones de la investigación

BMJ | 14 MARCH 2009 | VOLUME 338

617

NEWS

Prominent celecoxib researcher admits fabricating data

Jeanne Lenzer NEW YORK

A well known researcher who promoted the use of the non-steroidal anti-inflammatory drug celecoxib has admitted fabricating data in 21 of his 72 articles indexed by PubMed. The case is "among the biggest which has come to light," said Harvey Marcovitch, chairman of the Committee on Publication Ethics, an international forum for publishers and editors of peer reviewed journals.

Scott S Reuben, chief of the acute pain service at Baystate Medical Center in Springfield, Massachusetts, has admitted the fraud, says a notice issued by the centre. Jane Albert, a spokeswoman for the centre, a teaching hospital that serves as a campus of Tufts University School

of Medicine, said that after evaluating the 51 other articles by Dr Scott the centre "was not able to reconstruct the scientific trail" to either prove or disprove fraud in those articles.

The notice says that "all fabricated data were created under the sole control of Dr Reuben."

Dr Reuben, who received research grants from Pfizer, the US manufacturer of celecoxib (marketed as Celebrex), and served on its speakers' bureau, pioneered "multimodal analgesia," the combination of celecoxib with another Pfizer drug, the anticonvulsant pregabalin (Lyrica). The combination, Dr Reuben claimed, was preferable to opioids, and it became a mainstay in pain management.

James Eisenach, editor in chief of *Anesthesiology*, said that Dr Reuben's research was central to the claim that celecoxib reduces pain at six and 12 months after surgery. He said that the fraud creates a "hole" in pain research and casts doubt on claims about celecoxib.

Dr Eisenach says in an editorial to be published in the May 2009 issue of *Anesthesiology* (<http://pdfs.journals.lww.com/anesthesiology/9000/00000/99939.pdf>) that the retracted articles "have been considerably cited since 2002" and that mere retraction of the articles will not be enough. He says that the journal will use its peer review system "to assure that these articles are no longer cited by

Limitaciones de la investigación

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The Lancet, Volume 382, Issue 9895, Page 843, 7 September 2013
doi:10.1016/S0140-6736(13)61847-4 [Cite or Link Using DOI](#)

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Other Articles of Interest

[The Lancet Oncology Commission Planning cancer control in Latin America and the Caribbean](#)

[Series Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?](#)

Retraction—Valsartan in a Japanese population with hypertension and other cardiovascular disease (Jikei Heart Study): a randomised, open-label, blinded endpoint morbidity-mortality study

[The Lancet Editors](#)

The Lancet published the Jikei Heart Study in April, 2007. ¹On July 31, 2013, we were informed by Professor Kazuhiro Hashimoto (Jikei University) that there had been a press conference on July 30 reporting an interim conclusion from an internal investigation into this research. The report considered that “The data on blood pressure are not reliable...”. Given this finding, we now wish to retract the Jikei Heart Study on the grounds that we no longer have confidence in the published results.

When the ...

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Limitaciones de la investigación

Yoshitaka Fujii **se inventó** los datos de **172 estudios**, de los cuales 126 eran ensayos clínicos

Peter Gotzsche. Deadly Medicines and Organized crime

Limitaciones de la investigación

Las Agencias reguladoras “tapan” los fraudes que ellas mismas detectan en las inspecciones de los ensayos clínicos

Ej: telitromicina, rivaroxaban, apixaban, etc.

http://www.slate.com/articles/health_and_science/science/2015/02/fda_inspections_fraud_fabrication_and_scientific_misconduct_are_hidden_from.1.html

Limitaciones de la investigación

Información / promoción

En 1974 se crean compañías para redactar artículos científicos y lograr publicarlos en revistas de impacto (autores fantasmas)

IntraMed, Sudler & Hennessey, Axis HealthCare Communications, Excerpta Medica, Current Medical Directions, Edelman Medical Communications, Complete Healthcare Communications, Adis, etc.

Complete Healthcare Communications, creada en 2006, ha escrito más de 500 artículos. Más del 80% se han publicado en las mejores revistas médicas del mundo.


Our Daily Meds by Melody Petersen

Limitaciones de la investigación

Información / promoción

TAMIFLU

A Cochrane group's attempt to reproduce an analysis underpinning the use of oseltamivir in pandemic influenza hit a brick wall. **Deborah Cohen** retraces its steps



COMPLICATIONS
Tracking down the data on oseltamivir

It started this July with an inquiry from a Japanese paediatrician, Keiji Hayashi, to the Cochrane Collaboration about its 2008 review of the treatment of influenza with oseltamivir.

"You described that oseltamivir 150 mg daily prevented lower respiratory tract complications and lower respiratory tract infections requiring antibiotics by 55% (Tamiflu media briefing, 7 Sept 2009). These statements, Roche said, were based on the conclusions of the Kaiser paper.

At the start of September, Bill Burns, CEO of Roche, told a global audience via CNBC:

"What Tamiflu can do is actually reduce

The Kaiser paper was also cited by Professor Fred Hayden when he recommended the stockpiling of oseltamivir. Hayden was a co-author of the Kaiser paper as well as a co-author on one of the trials it included." He currently advises WHO and the Department of Health and coordinates

Declaraciones de un empleado de Adis:

"In the introduction for Tamiflu, I had to say what a big problem influenza is. I'd also have to come to the conclusion that Tamiflu was the answer," they said.



NEWS

IMAGES

VOICES

SPORT

TECH

LIFE

PROPERTY

ARTS + ENTS

TRAVEL

MONEY

IN

UK ▾ / World ▾ / Business ▾ / People ▾ / [Science](#) / Environment ▾ / Media ▾ / Technology / Education ▾ / Images / Obi

News > Science

The drugs don't work: Britain wasted £600m of taxpayers' money on useless flu pills stockpiled by Government in case of pandemic



Limitaciones de la investigación



“Independencia y transparencia” de las Agencias (FDA, EMA)

Peter C Gøtzsche (Cochrane) solicita datos de ensayos sobre sibutramina y rimonabant a la EMA

Petición denegada: “la protección del interés comercial está por encima de la salud de las personas”, Thomas Lönngren (director de la EMA)

Limitaciones de la investigación

Las Agencias (FDA, EMA) actúan con poca transparencia (prevalece el secreto industrial sobre la salud y se viola la declaración de Helsinki)

Fuerte presión de los Laboratorios para condicionar el dictamen de los técnicos de las Agencias. Ej. Roche – erlotinib en cáncer páncreas

Censorship masquerading as "transparency":
the EMEA assessment report on rimonabant



We often ask the European Medicines Agency (EMA) for information that is not available on the agency's website. Their response in the case of rimonabant, a drug that has now been withdrawn from the market, is an example of how drug regulatory agencies practice censorship.

The EMA provided us with several documents, including a report from the Swedish agency (Läkemedelsverket "Acompla First Assessment Report"). Yet, only 3 of the 66 pages in this report were legible; the rest of the text has been systematically blacked out, line by line, even including the date of the report.

©Prescrire

Limitaciones de la investigación

NEWS

European Parliament Still Dissatisfied With EMA's Conflict of Interest Policies

Latest News | Posted: 14 May 2012

By Alexander Gaffney

0 Likes  



Join the discussion on [Regulatory Exchange](#)

The European Parliament is still refusing to sign off on the European Medicines Agency's (EMA) 2010 budget expenditures, the latest development in a long-running fight over the agency's credibility, reports *Science Magazine*.

The European Parliament [last refused to approve EMA's expenditures in March 2012](#), and demanded the agency present it with deliverables on how it planned to make improvements.

Limitaciones de la investigación

“Transparencia” en farmacovigilancia

European Medicines Agency acts on deficiencies in Roche medicines-safety reporting

Medicines authorities focus on any possible impact on patients

The European Medicines Agency is working with national medicines agencies to investigate deficiencies in the medicine-safety reporting system of Roche. This includes looking at whether the deficiencies have an impact on the overall benefit-risk profile for any of the products involved.

There is at present no evidence of a negative impact for patients and while the investigations are being conducted there is no need for patients or healthcare professionals to take any action.

The deficiencies are identified in a May 2012 report from the UK medicines regulatory agency (MHRA) following an inspection at Roche. This was part of a coordinated European programme of routine inspection of safety reporting systems.

At the time of the inspection the company identified some 80,000 reports for medicines marketed by Roche in the USA that had been collected through a Roche-sponsored patient support programme, but which had not been evaluated to determine whether or not they should be reported as suspected adverse reactions to the EU authorities. These included 15,161 reports of death of patients and it is not known whether the deaths were due to natural progression of the disease or had a causal link to the medicine. More recent information from the company indicates a smaller number of reports, but this information needs to be verified by the authorities.

Limitaciones de la investigación

20 July 2012
EMA/406355/2012
Senior Medical Officer

Workshop on access to clinical trial data and transparency

Send your expression of interest to ctdataworkshop@ema.europa.eu

The European Medicines Agency is hosting a workshop on access to clinical trial data and transparency on 22 November 2012 from 12.30 to 17.00 in meeting room 2A at the Agency's offices in Canary Wharf, London, UK.

Background and objectives of the workshop

Access to data from drug trials has been the subject of public debate. The Agency is fully committed to transparency and announced that it will proactively publish trial data and enable access to full data sets by interested parties. While the Agency considers clinical trial data not to be commercially confidential, a number of practical and policy issues need to be addressed before complex data sets can be made available to a wider audience.

Limitaciones de la investigación



COMISIÓN EUROPEA

Bruselas, 17.7.2012
COM(2012) 369 final

2012/0192 (COD)

Propuesta de

REGLAMENTO DEL PARLAMENTO EUROPEO Y DEL CONSEJO

**sobre los ensayos clínicos de medicamentos de uso humano, y por el que se deroga la
Directiva 2001/20/CE**

Limitaciones de la investigación

La EMA propone que todos los datos de los ensayos sean públicos

La industria farmacéutica ha llevado a la EMA a juicio por intentar revelar secretos industriales

El Parlamento Europeo aprueba una ley para que todos los datos de los ensayos sean públicos

Limitaciones de la investigación

La entrada en vigor será en el año 2016

Un Laboratorio ha retirado la demanda judicial contra la EMA

En el acuerdo de comercio EEUU – Europa se incluye la elaboración de una directiva europea sobre secretos industriales que afecte a los ensayos clínicos...

Limitaciones de la investigación

Los estudios de la IF se diseñan con criterios de beneficio empresarial y no por su interés científico y social

El 80% de los estudios que realiza la IF no son publicados: sesgo de información

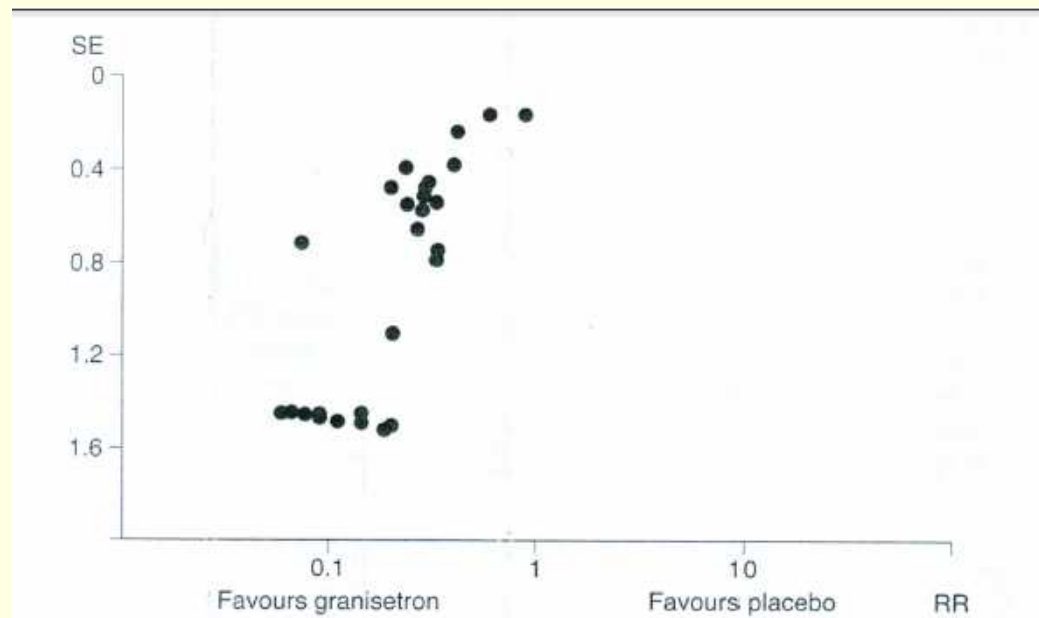


Figure 9.2 Bias in trials comparing granisetron with placebo for postoperative nausea and vomiting. Results are shown for the use of a rescue antiemetic.

Limitaciones de la investigación

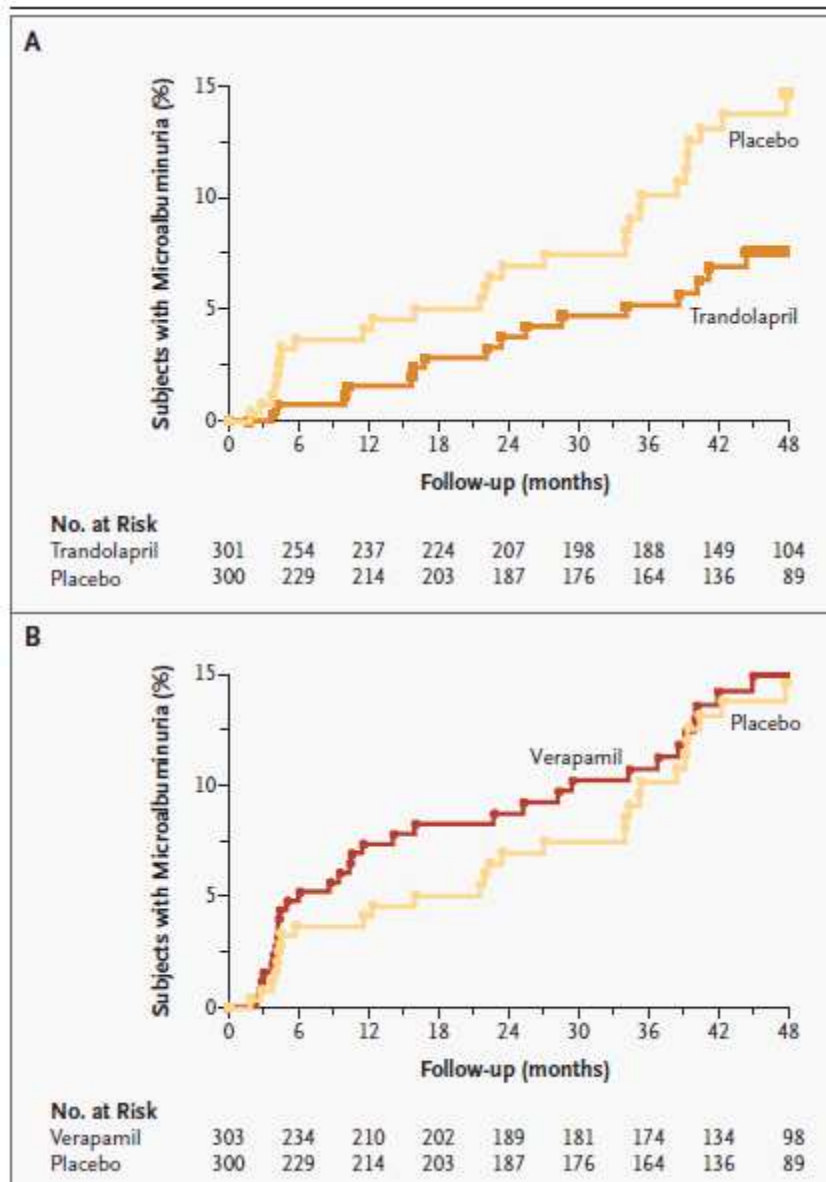
Los datos de los estudios se publican parcialmente (ej: estudios VIGOR y CLASS)

Muchos estudios tienen sesgos en su diseño para favorecer los resultados de quien lo financia. Ej:

Limitaciones de la investigación

Grupo con

Elección in
favorecer a
ARA II)



basales

ol para

atía diabética y

Limitaciones de la investigación

Dosis inapropiada del fármaco control (Ej: AAS 325 mg vs triflusal 600 mg/d)

Dosis de salida no basada en criterios clínicos ni en datos de ensayos previos (Ej: cerivastatina, duloxetine)

Manipulación de los datos obtenidos

“tortura” de datos (buscando la “ $p < 0,05$ ”)

Mala interpretación de los datos obtenidos

Limitaciones de la investigación

“tortura” de datos (buscando la “ $p < 0,05$ ”)

Epidemiology/Health Services/Psychosocial Research
ORIGINAL ARTICLE

The Prospective Pioglitazone Clinical Trial in Macrovascular Events (PROactive)

Can pioglitazone reduce cardiovascular events in diabetes? Study design and baseline characteristics of 5,238 patients

BERNARD CHARBONNEL, MD¹

JOHN DORMANDY, FRCS(ED), FRCS(ENG), DSC²

ERLAND ERDMANN, MD, FESC, FACC³

MASSIMO MASSI-BENEDETTI, MD⁴

ALLAN SKENE, PHD³

ON BEHALF OF THE PROACTIVE STUDY
GROUP

It is estimated that 115 million people worldwide suffered from diabetes in 1995 and that this figure will increase to 215 million by 2010 (1) and 300 million by 2025 (2). The social and economic consequences of the management of dia-

Diabetes Care 27:1647–1653, 2004

Limitaciones de la investigación

“tortura” de datos (buscando la “ $p < 0,05$ ”)

Efecto adverso	Placebo (n)	Pioglitazona (n)	p
Cáncer de vejiga	6	14	0,07 (n.s.)

4 años después se sabe que un caso del grupo placebo **NO** era cáncer sino hiperplasia benigna...

Efecto adverso	Placebo (n)	Pioglitazona (n)	p
Cáncer de vejiga	5	14	0,04 (d.s.)

Limitaciones de la investigación

“tortura” de datos (buscando la “ $p < 0,05$ ”)



The screenshot shows the official website of the U.S. Food and Drug Administration (FDA). The header includes the FDA logo, the text "U.S. Food and Drug Administration Protecting and Promoting Your Health", and a search bar. Below the header is a navigation menu with links to Home, Food, Drugs, Medical Devices, Radiation-Emitting Products, Vaccines, Blood & Biologics, Animal & Veterinary, Cosmetics, and Tobacco Products. The main content area is titled "Safety" and features a breadcrumb trail: Home > Safety > MedWatch The FDA Safety Information and Adverse Event Reporting Program > Safety Information >. The headline reads "Actos (pioglitazone): Ongoing Safety Review - Potential Increased Risk of Bladder Cancer". Below the headline, there are two paragraphs of text. The first paragraph, dated 08/04/2011, states that the FDA has approved updated drug labels for pioglitazone-containing medicines to include safety information about an increased risk of bladder cancer after more than one year of use. The second paragraph, dated 06/15/2011, states that the use of Actos (pioglitazone) for more than one year may be associated with an increased risk of bladder cancer, and that this information will be added to the Warnings and Precautions section of the label and the patient Medication Guide.

U.S. Department of Health and Human Services

FDA U.S. Food and Drug Administration
Protecting and Promoting *Your* Health

A to Z Index | Follow FDA | FDA Voice Blog

Home Food Drugs Medical Devices Radiation-Emitting Products Vaccines, Blood & Biologics Animal & Veterinary Cosmetics Tobacco Products

Safety

Home > Safety > MedWatch The FDA Safety Information and Adverse Event Reporting Program > Safety Information >

Actos (pioglitazone): Ongoing Safety Review - Potential Increased Risk of Bladder Cancer

[UPDATED 08/04/2011] The U.S. Food and Drug Administration (FDA) is informing the public that the Agency has approved updated drug labels for the pioglitazone-containing medicines to include safety information that the use of pioglitazone for more than one year may be associated with an increased risk of bladder cancer.

[UPDATED 06/15/2011] Use of the diabetes medication Actos (pioglitazone) for more than one year may be associated with an increased risk of bladder cancer. Information about this risk will be added to the *Warnings and Precautions* section of the label for pioglitazone-containing medicines. The patient Medication Guide for these medicines will also be revised to include information on the risk of bladder cancer.

Limitaciones de la investigación

ons both with patients with other types of fractures and with the general population. We conducted analyses of the type of bisphosphonate, the duration of treatment, and how often the drug was used, and in the analyses we considered the concomitant use of other drugs and coexisting conditions. It has been proposed that glucocorticoids and proton-pump inhibitors are likely to contribute to the risk of atypical fractures,^{3,9} but our data suggest that this is not the case.

The risk of atypical fractures decreased more rapidly after drug withdrawal than would be expected, given the prolonged presence of the drug in the bone. This observation and the increased risk during the first year of treatment are difficult to reconcile with the etiologic hypothesis that atypical fractures are a consequence of increased age-related loss of cortical bone because of reduced remodeling. Thus, the pathogenic role of bisphosphonates

use. Third, results adjusted for coexisting conditions and the use of other drugs were based on the case-control analysis only. Fourth, the study was performed in women and in a Northern European country, limiting the generalizability to men and other ethnic groups. Finally, no data were available to evaluate whether the risk of atypical fracture was dependent on bone density.

We conclude that the absolute risk of atypical fracture associated with bisphosphonates for the individual patient with a high risk of osteoporotic fractures is small as compared with the beneficial effects of the drug.

Dr. Aspenberg reports receiving consulting fees from Eli Lilly and Amgen and grant support to his institution, Linköping University, from Eli Lilly and Amgen, as well as holding stock in AddBio, a company trying to commercialize a method for bisphosphonate coating of implants to be inserted in bone, and holding a patent for this method. No other potential conflict of interest relevant to this article was reported.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

Limitaciones de la investigación

periodo de pre-inclusión (*run-in period*)

Efficacy and safety of once-daily QVA149 compared with twice-daily salmeterol-fluticasone in patients with chronic obstructive pulmonary disease (ILLUMINATE): a randomised, double-blind, parallel group study



Claus F Vogelmeier, Eric D Bateman, John Pallante, Vijay KT Alagappan, Peter D'Andrea, Hungta Chen, Donald Banerji

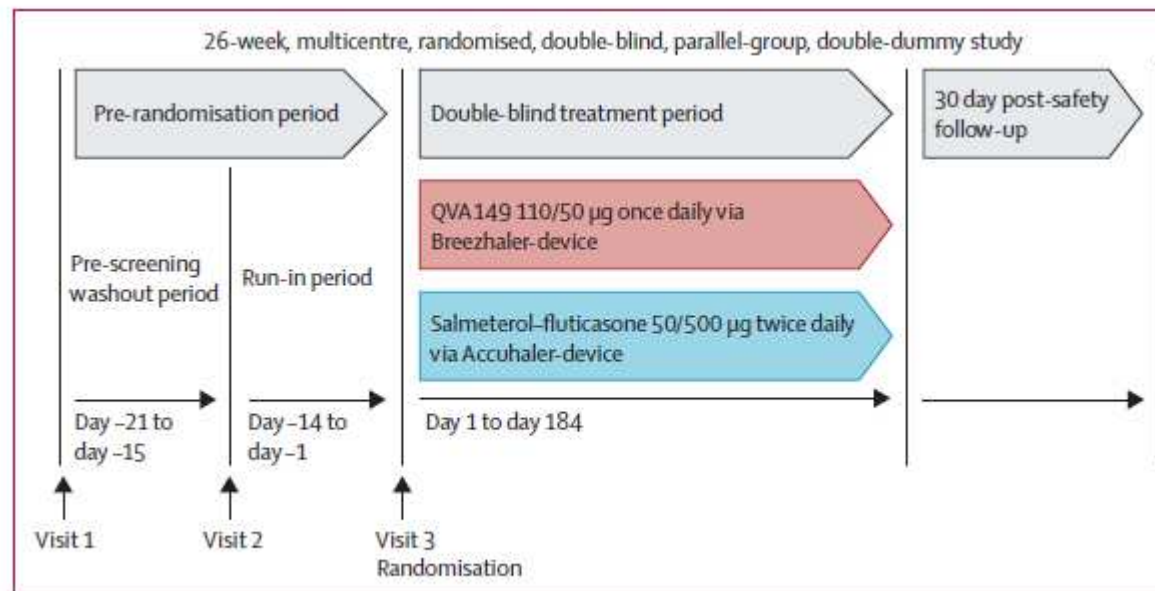


Figure 1: ILLUMINATE study design

Limitaciones de la investigación

criterios de

Criterios de exclusión - Selección

1. Pacientes en tratamiento previo con terapia anti-VEGF, terapia fotodinámica (TFD) o láser térmico en el ojo de estudio.
2. Pacientes con cirugía intraocular (incluyendo cirugía de cataratas) en el ojo de estudio en los 3 meses previos a la visita basal.
3. Pacientes con cualquier otra/s enfermedad/des ocular/es que pueda conducir a la disminución de la agudeza visual (retinopatía diabética, glaucoma avanzado, miopía patológica).
4. Pacientes con cicatriz, fibrosis o atrofia que afecte el centro de la fovea en el ojo de estudio.
5. Pacientes con desgarramientos/roturas en el epitelio pigmentario de la retina (EPR) que afecten el centro de la fovea en el ojo de estudio.
6. Pacientes con antecedentes de cirugía de vitrectomía, cirugía submacular, u otras cirugías de intervención para la degeneración macular relacionada con la edad (DMAE) en el ojo de estudio.
7. Pacientes con inflamación intraocular activa en el ojo de estudio.
8. Pacientes con antecedentes de accidente cerebrovascular, infarto de miocardio o ataques isquémicos transitorios en los 3 meses previos al inicio del estudio.
9. Pacientes que no pueden someterse a una angiografía fluoresceínica o fotografía de fondo del ojo debido a alergias no controladas.
10. Mujeres potencialmente fértiles que tengan previsto quedarse embarazadas, estén embarazadas y/o en periodo de lactancia, o bien que no deseen utilizar un método anticonceptivo eficaz (anticonceptivos hormonales [implantación, parches, oral], y métodos de doble barrera [cualquier combinación doble de: DIU, profilácticos masculinos o femeninos con gel espermicida, diafragma, esponja anticonceptiva, capuchón cervical]).
11. Pacientes con incapacidad de cumplir con el estudio y los procedimientos de seguimiento.
12. Pacientes que estén participando de forma simultánea en otro(s) ensayo(s) clínico(s).

Limitaciones de la investigación

criterios de inclusión / exclusión de pacientes

Efecto adverso	Bevacizumab / ranitizumab	aflibercept
Infarto o ictus	0-2%	3,3%

No hay ningún estudio comparativo entre los distintos principios activos

Limitaciones de la investigación

Regulación de los medicamentos

1980. Creación de la ICH. La máxima “colaboración” público-privada

Relajación sutil de los requisitos para la aprobación de medicamentos

Ensayos de no-inferioridad

Plan de Gestión de Riesgos

Comparación injustificada frente a placebo

Variables intermedias (glitazonas y riesgo CV, etc.)

Duración insuficiente ECAs (asma y EPOC, 12 sem, etc.)

Limitaciones de la investigación

Regulación de los medicamentos

1980. Creación de la ICH. La máxima “colaboración” público-privada

Licencia adaptativa (pilotaje)

Ejemplo de “relajación en la aprobación”: umeclidinio + vilanterol en EPOC

La EMA lo aprueba en **2014** con los votos en contra de España e Italia, porque la asociación no presenta ventajas frente al umeclidinio solo.

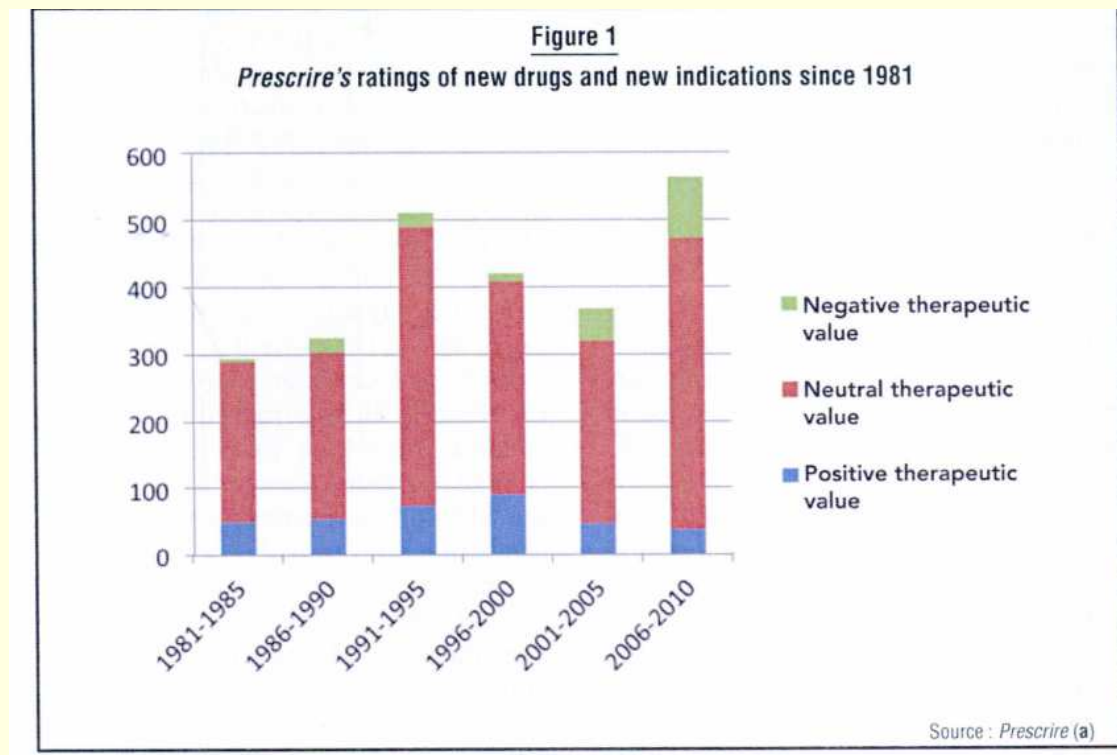
La EMA requiere un estudio fase IV para evaluar un posible aumento de incidencia de episodios cardiovasculares y cerebrales

La EMA permite que los estudios exigidos en el Plan de Riesgos se entreguen en el 3er cuatrimestre de **2024** (patente ya caducada)

Limitaciones de la investigación

¿A dónde nos lleva todo esto?

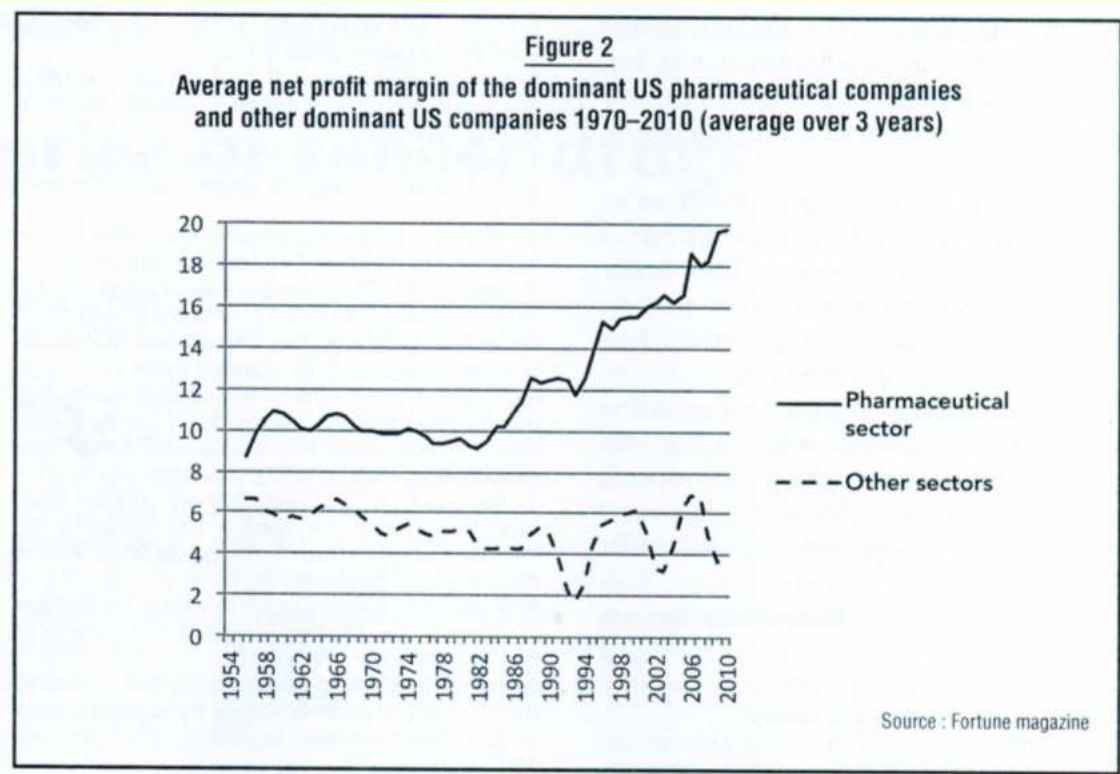
Empeoramiento progresivo del arsenal terapéutico



Limitaciones de la investigación

¿A dónde nos lleva todo esto?

Aumento de las ganancias de las compañías farmacéuticas



Necesitamos... información independiente

