

La Atención  
Farmacéutica  
en la Universidad

Jornada-Taller



Madrid, 12 de septiembre de 2013

## Departamento responsable de la enseñanza de la Atención Farmacéutica.

Plantilla docente. Situación en los diferentes países.

**Fernando Fernandez-Llimos**

**Professor Auxiliar**

**Departamento de Sócio-Farmácia**



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# Anécdota...





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## Enseñanza universitaria en España

La enseñanza universitaria en España está regulada actualmente por:

- La Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.<sup>1</sup>
- La Ley Orgánica 4/2007 de 12 de abril, por la que se modifica la Ley Orgánica 6/2001<sup>2</sup>

Por otra parte, el Real Decreto 1393/2007, de 29 de octubre, establece la ordenación de las enseñanzas universitarias oficiales concretando la estructura de acuerdo con las líneas generales emanadas del [Espacio Europeo de Educación Superior](#) (EEES). Según esta estructura se divide la enseñanza universitaria en [grados](#) y programas de [posgrado](#) (que, a su vez, constan de [máster](#) y de [doctorado](#)).

Los grados y los másteres toman como medida de la carga lectiva el crédito.

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**Universidades** [\[editar · editar fuente\]](#)

*Artículo principal:* [Universidades de España](#).

**Grados** [\[editar · editar fuente\]](#)

# Anécdota...

## 147 grados en 5 áreas:

- Artes y Humanidades
- Ciencias
- Ciencias de la Salud
- Ciencias Sociales y Jurídicas
- Ingeniería y Arquitectura

### Ciencias de la Salud

- Grado en Ciencia y Tecnología de los Alimentos
- Grado en Enfermería
- Grado en Logopedia
- Grado en Medicina
- Grado en Odontología
- Grado en Óptica y Optometría
- Grado en Podología
- Grado en Psicología
- Grado en Terapia Ocupacional

The screenshot shows the 'Catálogo de Grados Universitarios en España' website. The page is titled 'Ciencias de la Salud' and lists various degrees. The degree 'Grado en Óptica y Optometría' is highlighted in red, matching the text in the adjacent box. The page also includes navigation menus, search filters, and a list of degree details.

# LEY ORGÁNICA 6/2001, de 21 de diciembre, de Universidades.

## TÍTULO PRELIMINAR

### **De las funciones y autonomía de las Universidades**

#### Artículo 1. *Funciones de la Universidad.*

1. La Universidad realiza el servicio público de la educación superior mediante la investigación, la docencia y el estudio.

# LEY ORGÁNICA 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.

## PREÁMBULO

Desde la promulgación de la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades, han pasado cinco años. En este período se han detectado algunas deficiencias en su funcionamiento que aconsejan su revisión. Además, otros elementos del entorno han cambiado e inducen también a realizar modificaciones. Entre estos hechos se encuentran los acuerdos en política de educación superior en Europa y el impulso que la Unión Europea pretende dar a la investigación en todos sus países miembros. Estas circunstancias aconsejan la corrección

# LEY ORGÁNICA 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.

tural o educativa. Las universidades, además de un motor para el avance del conocimiento, deben ser un motor para el desarrollo social y económico del país. Junto a la investigación básica, la universidad deberá impulsar la transferencia al sector productivo de los resultados de su investigación en coordinación y complementariedad con los demás agentes del sistema de ciencia y tecnología. Una

# Atención Farmacéutica

Int J Clin Pharm (2013) 35:1–2  
DOI 10.1007/s11096-012-9728-x

EDITORIAL

## What is ‘pharmaceutical care’ in 2013?

J. W. Foppe van Mil · Fernando Fernandez-Llimos

van Mil JWF, Fernandez-Llimos F. What is ‘pharmaceutical care’ in 2013? Pharmacy Practice 2013 Jan-Mar;11(1):1-2.

**Editorial**

## What is ‘pharmaceutical care’ in 2013?

J. W. Foppe VAN MIL, Fernando FERNANDEZ-LLIMOS.

Received (first version): 16-Nov-2012

Accepted: 19-Nov-2012

# Pharmaceutical care

- Does “the responsible provision of drug therapy” mean that pharmaceutical care is necessarily associated with the provision, (or dispensing) of drugs (medicines)?
- Is the provision of drug therapy than something pharmacists do?
- Does “the purpose of achieving definite outcomes” limit the process of pharmaceutical care to outcome oriented activities only?
- Does the aim to “improve a patient’s quality of life” mean that pharmaceutical care is not implemented to improve clinical or economic outcomes, following Kozma’s ECHO model?
- Should ‘pharmaceutical care’ always be associated with the existence of medicine treatment in a given patient?
- Is pharmaceutical care a ‘pharmacist-only’ activity?



# Pharmaceutical care

- **Pharmaceutical care is the contribution of pharmacists to the care of individuals in order to optimise medicines use and to improve health outcomes.**

Pharmaceutical Care European Network Invitational Meeting, 4th March 2013

# Pharmacy Practice

- **Práctica farmacéutica**
- **Farmacia Práctica**
- **Ejercicio de la Farmacia**

# FIP/WHO



**The mission of pharmacy practice is to contribute to health improvement and to help patients with health problems to make the best use of their medicines.**

**Joint FIP/WHO guidelines on good pharmacy practice, 2012**

**Departamento responsable de la enseñanza de**  
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# 4 major roles for pharmacists



- Role 1: Prepare, obtain, store, secure, distribute, administer, dispense and dispose of medical products
- Role 2: Provide effective medication therapy management
- Role 3: Maintain and improve professional performance
- Role 4: Contribute to improve effectiveness of the health-care system and public health

# 4 major roles for pharmacists

- Role 1: Prepare, obtain, store, secure, distribute, administer, dispense and dispose of medical products
  - Function A: Prepare extemporaneous medicine preparations and medical products
  - Function B: Obtain, store and secure medicine preparations and medical products
  - Function C: Distribute medicine preparations and medical products
  - Function D: Administration of medicines, vaccines and other injectable medications
  - Function E: Dispensing of medical products
  - Function F: Dispose of medicine preparations and medical products



# 4 major roles for pharmacists

- Role 2: Provide effective medication therapy management
  - Function A: Assess patient health status and needs
  - Function B: Manage patient medication therapy
  - Function C: Monitor patient progress and outcomes
  - Function D: Provide information about medicines and health-related issues



# 4 major roles for pharmacists

- Role 3: Maintain and improve professional performance
  - Function A: Plan and implement continuing professional development 4 strategies to improve current and future performance





# 4 major roles for pharmacists

- Role 4: Contribute to improve effectiveness of the health-care system and public health
  - Function A: Disseminate evaluated information about medicines and various aspects of self-care
  - Function B: Engage in preventive care activities and services
  - Function C: Comply with national professional obligations, guidelines and legislations
  - Function D: Advocate and support national policies that promote improved health outcomes



# Int J Pharm Pract

- Topics covered include: medicines utilisation, medicine management, medicines distribution, supply and administration, pharmaceutical services, professional and patient/lay perspectives, public health (including, e.g. health promotion, needs assessment, health protection) evidence based practice, pharmacy education.

# Pharm Pract

- Pharmacy Practice covers a wide range of pharmacy activities, among them and not being comprehensive, clinical pharmacy, pharmaceutical care, social pharmacy, pharmacy education, process and outcome research, health promotion and education, health informatics, pharmacoepidemiology, etc.

# responsable de la enseñanza?

Seis. El artículo 9 queda redactado del siguiente modo:

## «Artículo 9. Departamentos.

1. Los departamentos son las unidades de docencia e investigación encargadas de coordinar las enseñanzas de uno o varios ámbitos del conocimiento en uno o varios centros, de acuerdo con la programación docente de la universidad, de apoyar las actividades e iniciativas docentes e investigadoras del profesorado, y de ejercer aquellas otras funciones que sean determinadas por los estatutos.

LEY ORGÁNICA 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.

# Razonamiento:

Universidad = Investigación + Docencia

Departamento = Unidad coordinadora  
de la Investigación y la Docencia

Departamento responsable de la  
enseñanza de *Pharmacy Practice*...

El que investigue en *Pharmacy Practice*

# Quien investiga en *Pharmacy Practice* en España?

- To identify publications in the pharmacy field, we searched PubMed/MEDLINE in May 2013 for all journals containing articles indexed by the term “pharmacists” [MeSH term] and published in 2012 .
- We selected the 10 journals containing the most articles indexed with “pharmacists” as a MeSH. To assess a potential inaccuracy, we included one journal, not included in the Top-20, but with a clear scope on pharmacy.
- All the articles published in these 11 journals from January 2008 to December 2012 were included for the analysis.

# Quien investiga en *Pharmacy Practice* en España?

	Articles analyzed (2008-2012)	% original research articles
Am J Health Syst Pharm	1773	-
Am J Pharm Educ	919	24.7
Ann Pharmacother	1374	30.2
Consult Pharm	344	12.8
Int J Clin Pharm/Pharm World Sci	516	77.7
Int J Pharm Pract	237	63.7
J Am Pharm Assoc	604	25.2
J Manag Care Pharm	271	43.2
J Pharm Pract	242	0.0
Pharmacotherapy	732	38.9
Res Social Adm Pharm	248	66.5
Total	7260	100

# Quien investiga en *Pharmacy Practice* en España?

Table 4. Prevalence of use of MeSH describing pharmacists activities among the fully indexed articles.

MeSH term	N	% articles
Pharmacists	1554	22,42%
Education, Pharmacy	881	12,71%
Students, Pharmacy	720	10,39%
Pharmaceutical Services	545	7,86%
Pharmacy Service, Hospital	341	7,80%
Community Pharmacy Services	525	7,57%
Schools, Pharmacy	269	3,88%
Societies, Pharmaceutical	200	2,89%
Pharmacies	162	2,34%
Education, Pharmacy, Graduate	150	2,16%
Pharmacy	142	2,05%
Insurance, Pharmaceutical Services	92	1,33%
Education, Pharmacy, Continuing	85	1,23%
Drug Compounding	72	1,04%
Pharmacists' Aides	61	0,88%
Clinical Pharmacy Information Systems	31	0,45%
Pharmacy Administration	21	0,30%
Legislation, Pharmacy	19	0,27%
Pharmacy and Therapeutics Committee	16	0,23%
Technology, Pharmaceutical	15	0,22%
Fees, Pharmaceutical	13	0,19%
Ethics, Pharmacy	12	0,17%
Licensure, Pharmacy	12	0,17%
Behind-the-Counter Drugs	3	0,04%
Pharmaceutical Services, Online	1	0,01%
Dictionaries, Pharmaceutic	0	-



# Quien investiga en *Pharmacy Practice* en España?

All MeSH Categories

Health Care Category

Health Care Facilities, Manpower, and Services

Health Services

**Pharmaceutical Services**

Community Pharmacy Services

Drug Information Services

Adverse Drug Reaction Reporting Systems

Clinical Pharmacy Information Systems

Medication Therapy Management

Pharmaceutical Services, Online

Pharmacy Service, Hospital

Prescriptions

Drug Prescriptions +

Electronic Prescribing

# Quien investiga en *Pharmacy Practice* en España?

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Licensure, Pharmacy	12	0,17%
Behind-the-Counter Drugs	3	0,04%
Pharmaceutical Services, Online	1	0,01%
Dictionaries, Pharmaceutic	0	-



23,24%



# Quien investiga en *Pharmacy Practice* en España?

- **591 artículos on “pharmaceutical services”[MH] entre 2000 y 2013.**
- **112 (18,95%) artículos afiliados por una Universidad.**
  - 23 de una universidad extranjera
  - 89 (15,06%) de una Universidad española

# Quien investiga en *Pharmacy Practice* en España?

Universidad	Artículos Pubmed* 2000-2013
Santiago de Compostela	19
Granada	9
Sevilla; Oviedo	8
Valladolid	6
La Laguna	5
Pompeu Fabra	4
Barcelona; Valencia; Rovira i Virgili	3
Autonoma Barna; Extremadura; Lleida; Zaragoza	2
Alicante; Complutense; Elche; Girona; Huelva; La Rioja; Malaga; Miguel Hernandez; Murcia; Navarra; Pais Vasco; Rey Juan Carlos	1

\*Indexados con MeSH

“pharmaceutical services”

# Quien investiga en *Pharmacy Practice* en España?

Departamento/Instituto/Grupo	Artículos Pubmed* 2000-2013
Departamento Medicina Preventiva y Salud Publica, U. Santiago de Compostela	18
Grupo de Investigación en Atención Farmacéutica, U. Granada	6
Instituto de Farmacoepidemiología, U. Valladolid	4
Departamento de Farmacología, U. Sevilla	3
Centro de Atención Primaria Jaume I, U. Rovira I Virgili	3

\*Indexados con MeSH

“pharmaceutical services”

# Quien investiga en *Pharmacy Practice* en España?

- Limitaciones:
  - Pueden estar mal indexados en Pubmed.
  - Pueden estar con una primera afiliación diferente a la del grupo
  - ...

# Farmacia comunitaria (10 años)

Andrés Iglesias JC, Andrés Rodríguez NF, Fornos Pérez JA. Community pharmacy-based research in Spain (1995-2005): A bibliometric study *Pharmacy Practice* 2007;5(1): 21-30.

## Original Research

# Community pharmacy-based research in Spain (1995-2005): A bibliometric study

José Carlos ANDRÉS IGLESIAS, N. Floro ANDRÉS RODRÍGUEZ, José Antonio FORNOS PÉREZ.

Table 1. Distribution of articles and impact factors of journals

Journal	Articles published	IF (year)
Pharmaceutical Care España	74	No
Seguimiento Farmacoterapéutico	22	No
Atención Primaria	6	No
Atención Farmacéutica	5	No
Ars Pharmaceutica	4	No
Annals of Pharmacotherapy	2	1.837 (2005)
Pharmacy World & Science	2	1.009 (2005)
Revista Española de Salud Pública	2	0.388 (2003)
Headache	2	2.455 (2005)
Clinical Pharmacokinetics	1	5.195 (2005)
American Journal of Health-System Pharmacy	1	1.437 (2005)
Revista Española de Nutrición Comunitaria	1	No

# Pharmacy Practice en USA

*American Journal of Pharmaceutical Education* 2012; 76 (7) Article 127.

## RESEARCH

### A 5-Year Analysis of Peer-Reviewed Journal Article Publications of Pharmacy Practice Faculty Members

Marie A. Chisholm-Burns, PharmD, MPH,<sup>a</sup> Christina Spivey, PhD,<sup>a</sup> Jennifer R. Martin, MA,<sup>b</sup> Christina Wyles, RN, MS,<sup>b</sup> Clara Ehrman, BS,<sup>b</sup> and Lauren S. Schlesselman, PharmD, MEd<sup>c</sup>

<sup>a</sup>University of Tennessee College of Pharmacy, Memphis, TN

<sup>b</sup>University of Arizona College of Pharmacy, Tucson, AZ

<sup>c</sup>University of Connecticut School of Pharmacy, Storrs, CT

Submitted February 6, 2012; accepted April 24, 2012; published September 10, 2012.

Table 2. Descriptive Statistics of Total Peer-Reviewed Journal Articles Published by Faculty Members at Pharmacy Colleges and Schools, by Year and Type of Institution

Type of Institution	2006	2007	2008	2009	2010
All pharmacy colleges and schools					
Mean number per institution (SD)	11.3 (10.0)	13.6 (12.3)	13.4 (12.0)	14.7 (13.3)	14.7 (11.1)
Median	7	10.5	9	11.5	13
Mode	4	1 <sup>a</sup>	2	4	2
Range	0-39	0-57	0-52	0-49	0-47



# Pharmacy Practice en Malasia

Annual Report 2011



*Discipline of Social and Administrative Pharmacy  
School of Pharmaceutical Sciences  
Universiti Sains Malaysia*



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# Pharmacy Practice en Malasia



# Quien investiga en *Pharmacy Practice* en USA?

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[New laws affecting physicians.](#)  
1. [No authors listed]  
Tenn Med. 2013 Aug;106(7):14, 22. No abstract available.  
PMID: 23930370 [PubMed - indexed for MEDLINE]  
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[WHO option B+: early experience of antiretroviral therapy sequencing after cessation of breastfeeding and risk of dermatologic toxicity.](#)  
2. Cohan D, Mwesigwa J, Natureeba P, Aliba Luwedde F, Ades V, Plenty A, Kakuru A, Achan J, Clark T, Osterbauer B, Kamya M, Havlir D.  
J Acquir Immune Defic Syndr. 2013 Mar 1;62(3):e101-3. doi: 10.1097/QAI.0b013e31828011ca. No abstract available.  
PMID: 23924639 [PubMed - indexed for MEDLINE]  
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[Accountable prescribing.](#)  
3. Morden NE, Schwartz LM, Fisher ES, Woloshin S.  
N Engl J Med. 2013 Jul 25;369(4):299-302. doi: 10.1056/NEJMp1301805. No abstract available.  
PMID: 23883375 [PubMed - indexed for MEDLINE] **Free Article**  
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4. Wadman M.

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U.S. trends in antiretroviral therapy use, HIV RNA plasma viral loads, and CC [Ann Intern Med. 2012]  
Accuracy of pharmacy and coded-diagnosis information i [Pharmacoepidemiol Drug Saf. 2012]  
Hospitalizations for intussusception before and after the reintro [Arch Pediatr Adolesc Med. 2012]  
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# Quien investiga en *Pharmacy Practice* en Nigeria?

- **64 artículos on “pharmaceutical services”[MH] entre 2000 y 2013.**
- **44 (68,75%) artículos afiliados por una Universidad.**
  - 4 de una universidad extranjera
  - 40 (62,50%) de una Universidad nigeriana

# Quien investiga en *Pharmacy Practice* en Nigeria?

Universidad	Artículos Pubmed* 2000-2013
Lagos	10
Lagos State	6
Nigeria; Obafemi Awolowo	5
Ibadan	4
Benin; Usmanu DanFodiyo	3
Ahmadu Bello; Ambrose Ali; Iliron; Port Harcourt	1

\*Indexados con MeSH

“pharmaceutical services”

# Quien investiga en *Pharmacy Practice* en Nigeria?

Departamento/Instituto/Grupo	Artículos Pubmed* 2000-2013
Department of Pharmacology and Therapeutics, U. Lagos State	5
Department of Pharmacology, U. Lagos	3
Department of of Clinical Pharmacy and Biopharmacy, U. Lagos	3
Department of Clinical Pharmacy and Pharmacy Management, U. Nigeria	3

\*Indexados con MeSH

“pharmaceutical services”

# Quien investiga en *Pharmacy Practice* en Portugal?

- **64 artículos on “pharmaceutical services”[MH] entre 2000 y 2013.**
- **42 (65,63%) artículos afiliados por una Universidad.**
  - **11 de una universidad extranjera**
  - **31 (48,44%) de una Universidad portuguesa**

# Quien investiga en *Pharmacy Practice* en Portugal?

Universidade	Artículos Pubmed* 2000-2013
Lisboa	12
Porto	6
Aveiro; Beira Interior; Coimbra	3
Minho	2
Nova Lisboa	1

\*Indexados con MeSH

“pharmaceutical services”



# Quien investiga en *Pharmacy Practice* en Nigeria?

Departamento/Instituto/Grupo	Artículos Pubmed* 2000-2013
Departamento de Socio-Farmacía / iMed Socio-Farmacía	11
Unidade de Farmacovigilância do Norte	4

\*Indexados con MeSH  
"pharmaceutical services"

## Quien investiga en *Pharmacy Practice*?

- España: 591 artículos\* entre 2000 y 2013.
  - 112 (18,95%) artículos afiliados por una Uni. española.
- Nigeria: 64 artículos\* entre 2000 y 2013.
  - 40 (62,50%) artículos afiliados por una Uni. nigeriana.
- Portugal: 64 artículos\* entre 2000 y 2013.
  - 31 (48,44%) artículos afiliados por una Uni. portuguesa.
- Estados Unidos: 6583 artículos\* entre 2000 y 2013.

\*Indexados con MeSH

“pharmaceutical services”  
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# Ejemplo (I)

generic vs. brand pricing



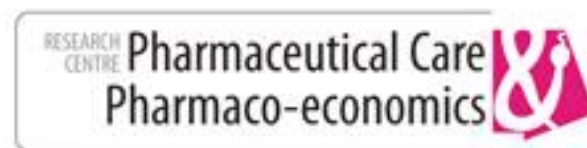
Available online at [www.sciencedirect.com](http://www.sciencedirect.com)

- Results: Price changes for 81 different products in 144 separate presentations were analysed. There was no statistically significant change in brand-name prices when generic competition started. The movement of brand-name prices was not influenced by whether the generic was made by the company producing the brand-name product or price freezes imposed by the Ontario government.

# Ejemplo (I)

## generic vs. brand pricing

- 1: Dylst P, Vulto A, Simoens S. Demand-side policies to encourage the use of generic medicines: an overview. *Expert Rev Pharmacoecon Outcomes Res.* 2013 Feb;13(1):59-72.
- 2: Simoens S, Sinnaeve PR. Generic atorvastatin, the Belgian statin market and the cost-effectiveness of statin therapy. *Cardiovasc Drugs Ther.* 2013 Feb;27(1):49-60.
- 3: Dylst P, Vulto A, Simoens S. The impact of reference-pricing systems in Europe: a literature review and case studies. *Expert Rev Pharmacoecon Outcomes Res.* 2011 Dec;11(6):729-37.
- 4: Simoens S. Developing competitive and sustainable Polish generic medicines market. *Croat Med J.* 2009 Oct;50(5):440-8.
- 5: Simoens S. Health economics of market access for biopharmaceuticals and biosimilars. *J Med Econ.* 2009 Sep;12(3):211-8.
- 6: Van Paesschen W, Hauman H, Lagae L. The use of generic medication in epilepsy: a review of potential issues and challenges. *Eur J Paediatr Neurol.* 2009 Mar;13(2):87-92.
- 7: Declerck PJ. Biotherapeutics in the era of biosimilars: what really matters is patient safety. *Drug Saf.* 2007;30(12):1087-92.
- 8: Simoens S. International comparison of generic medicine prices. *Curr Med Res Opin.* 2007 Nov;23(11):2647-54.
- 9: Simoens S, De Bruyn K, Bogaert M, Laekeman G. Pharmaceutical policy regarding generic drugs in Belgium. *Pharmacoeconomics.* 2005;23(8):755-66.



# Ejemplo (I)

## generic vs. brand pricing

- 1: Puig-Junoy J. Do higher-priced generic medicines enjoy a competitive advantage under reference pricing? *Appl Health Econ Health Policy*. 2012 Nov 1;10(6):441-51.
- 2: Puig-Junoy J, Moreno-Torres I. Do generic firms and the Spanish public purchaser respond to consumer price differences of generics under reference pricing? *Health Policy*. 2010 Dec;98(2-3):186-94.
- 3: Puig-Junoy J. Impact of European pharmaceutical price regulation on generic price competition: a review. *Pharmacoeconomics*. 2010;28(8):649-63.
- 4: Puig-Junoy J. [Policies encouraging price competition in the generic drug market: Lessons from the European experience]. *Gac Sanit*. 2010 May-Jun;24(3):193-9.
- 5: Puig-Junoy J. [Comment. Substitution at pharmacies and generic market]. *Gac Sanit*. 2007 Sep-Oct;21(5):407.
- 6: Puig-Junoy J. The impact of generic reference pricing interventions in the statin market. *Health Policy*. 2007 Nov;84(1):14-29.
- 7: Puig-Junoy J. Incentives and pharmaceutical reimbursement reforms in Spain. *Health Policy*. 2004 Feb;67(2):149-65.
- 8: López-Casasnovas G, Puig-Junoy J. Review of the literature on reference pricing. *Health Policy*. 2000 Nov 17;54(2):87-123.

Academic Unit of the Barcelona GSE

Department of Economics and Business



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# Ejemplo (II)

## Efficacy of clinical medication review

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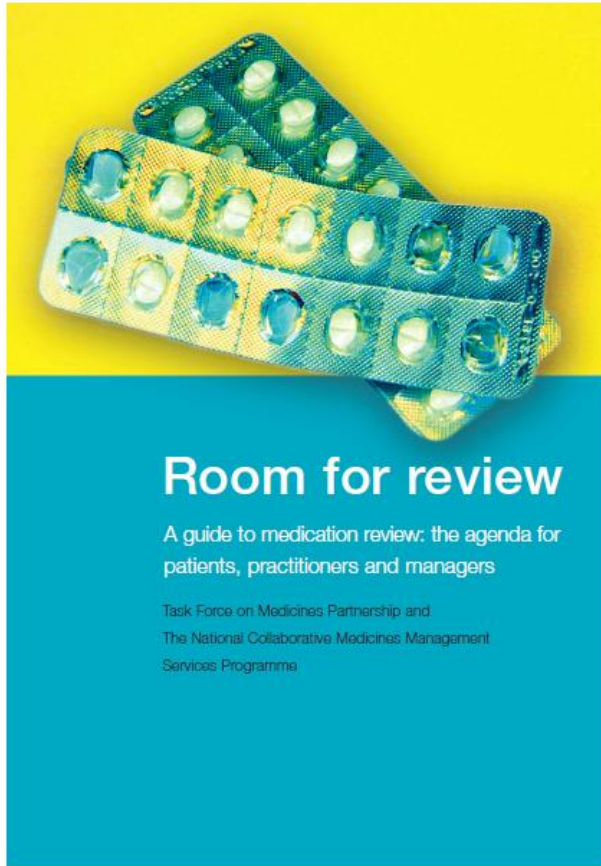
# Ejemplo (II)

## Efficacy of clinical medication review

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# Ejemplo (II)

## Efficacy of clinical medication review



### Room for review

A guide to medication review: the agenda for patients, practitioners and managers

Task Force on Medicines Partnership and  
The National Collaborative Medicines Management  
Services Programme

### The team on this guide

*Room for review* was produced by:

**Joanne Shaw**, Director, Medicines Partnership

**Richard Seal**, Project Manager, Medicines Management Services

**Mark Pilling**, Development Manager, Medicines Management Services

Web based tools were developed by a team from the Pharmacy Practice Group at the University of Leeds: Theo Raynor, Duncan Petty, Catherine Lowe, Jacky Nunney, Arnold Zermansky.

Pharmacy Practice and Medicines Management Group

Faculty of Medicine and Health

School of Healthcare



UNIVERSIDADE DE LISBOA



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# Ejemplo (III)

## The Australian case study

The screenshot displays the website for the 5th Community Pharmacy Agreement. At the top, there is a search bar and navigation links for 'The 5CPA', 'Initiatives & Programs', 'Pharmacy Registration', 'Resources', 'Useful Contacts', 'News and Events', and 'The Guild'. The main content area features a blue header for 'Medication Management Programs' and a text block stating: 'The Department of Human Services (DHS) are experiencing some delays in claims processing for a range of Medication Management Review programs. As a result, some payments for claims may be affected. DHS are making every effort to ensure claims submitted in accordance with the monthly payment cycle are paid in the regular payment periods. To meet the increased demand and ensure claims are processed and paid as quickly as possible DHS will be continuing with additional ad-hoc payment runs:'. Below this, a list of ad-hoc payment runs is provided: 'August ad-hoc payment run – processing to cease on 16/8 – with payments appearing in bank accounts from 21/8;' and 'September payment run – processing to cease on 4/9 – with payments appearing in bank accounts...'. On the right side, there are three promotional banners: '5CPA Help Line' with contact information, 'meds check?' with a question mark icon, and 'NEW! PPI Program eLearning module'. A 'NEW! Incentives' banner is partially visible at the bottom right.

# Ejemplo (III)

## MedsCheck and Diabetes MedsCheck

Funding of up to \$29.6 million is provided under the Fifth Community Pharmacy Agreement (5CPA) for the Medicines Use Review Program (known as MedsCheck) and also funding of up to \$12.2 million for the Diabetes Medication Management Service Program (known as Diabetes MedsCheck).

MedsCheck and Diabetes MedsCheck (MedsCheck services) provide for an in-pharmacy review of consumers who are taking multiple medications and/or have newly diagnosed or poorly controlled type 2 diabetes. These services are aimed at enhancing the quality use of medicines and reducing the number of adverse drug events experienced by consumers.

## Home Medicines Review

Funding of up to \$52.11 million is provided under the Fifth Community Pharmacy Agreement (5CPA) for the Home Medicines Review (HMR) program. The HMR program is designed to assist individuals living at home to maximise the benefits of their medicine regimen and prevent medication related problems.

A HMR service is available to patient's living in the community whose General Practitioner (GP) determines that a HMR is clinically necessary to optimise the quality use of medicines and to address the patient's needs.

## Residential Medication Management Review

Funding of up to \$70 million is provided under the Fifth Community Pharmacy Agreement (5CPA) for the Residential Medication Management Review (RMMR) program. The RMMR program aims to enhance the quality use of medicines, and reduce the number of adverse medicines events by assisting residents and their carers with their medication regimens.

An RMMR service is provided to a permanent resident of an Australian Government funded residential aged care facility, including those in flexible care arrangements (transitional care facilities), who are not eligible for a Home Medicines Review (HMR).

# Ejemplo (III)

## The Australian case study

- Third Agreement R&D
  - 58 proyectos
  - Priority areas for 2003
    - Quality use of medicines
    - Continuing care across the health system
    - Evaluation and further development of existing community pharmacy services and programs
    - Development of new cognitive services
    - Harm reduction for drug dependent people
    - Facilitating change processes within pharmacy practice and the health system to deliver higher quality and cost effective pharmacy professional services
    - Pharmacy workforce.

<http://www.guild.org.au/services-programs/research-and-development/archive---third-agreement>

# Ejemplo (III)

## The Australian case study

- 58 proyectos:
  - 16 por otras instituciones
  - 42 (72.4%) por Universidades
    - 17 University of Sydney
    - 7 University of Tasmania
    - 5 University of Queensland
    - 4 Curtin University
    - 3 University of South Australia
    - 3 Monash University
    - 1 University of Western Australia
    - 1 University of Technology, Sydney
    - 1 University of Ballarat

# Ejemplo (III)

## The Australian case study

42 proyectos, 29 Chief Researchers

Associate Professor Allan Everett	Jeffery Hughes
Dr Kathy Mott	Professor Andrew Gilbert
Dr Julie Stokes	Dr Parisa Aslani
Professor Greg Peterson	Dr Susan Taylor
Dr Lisa Nissen	Dr Andrew McLachlan
Professor Chris Silagy	Dr Tim Chen
Professor Bruce Sunderland	Dr Libby Roughhead
Dr Jeffery Hughes	Professor Carol Armour
Con Berbatis	Professor Michael Roberts
Dr Tim Chen	Professor Roger Nation
Professor Charlie Benrimoj	Dr Tracey Bessell
Rebekah Moles	Dr Paula Whitehead
Dr Sinthia Bosnic- Anticevich	Distinguished Professor Dexter Dunphy
Associate Professor Ines Krass	Chris Lynton-Moll
Peter Tenni	



# Asociación (causalidad?)

En España la investigación en *Pharmacy Practice* es escasa y de calidad limitada (no acorde con los indicadores de desarrollo)

En España no hay profesores universitarios exclusivamente dedicados a investigar y enseñar *Pharmacy Practice*

Otros países tienen mucha más investigación en *Pharmacy Practice*

Esos países tienen profesores universitarios exclusivamente dedicados a investigar y enseñar *Pharmacy Practice*

# Una reflexión personal

- Será que la pregunta correcta es:

**Departamento responsable de la enseñanza de la  
Atención Farmacéutica.**

Plantilla docente. Situación en los diferentes países.

Fernando Fernandez-Llimos  
Professor Auxiliar  
Departamento de Sócio-Farmácia



# Una reflexión personal

- O deberíamos preguntarnos: es suficiente formación para un farmacéutico asistencial

Modalidad	Hombres	Mujeres	Total	% Colegiados	% Activos
Oficina de Farmacia	13.063	31.785	44.848	68,5%	85,7%
Administración y Salud Pública	224	684	908	1,4%	1,7%
Alimentación	2.269	4.995	7.264	11,1%	13,9%
Análisis Clínicos	1.039	1.542	2.581	3,9%	4,9%
Dermofarmacia	2.775	5.937	8.712	13,3%	16,6%
Industria	445	840	1.285	2,0%	2,5%
Distribución	303	516	819	1,3%	1,6%
Docencia e Investigación	131	226	357	0,5%	0,7%
Farmacia hospitalaria	373	1.272	1.645	2,5%	3,1%
Óptica y acústica	267	377	644	1,0%	1,2%
Ortopedia	2.097	4.816	6.913	10,6%	13,2%
Otras Actividades	1.480	3.660	5.140	7,9%	9,8%



# Donde preparamos para...

## 4 major roles for pharmacists

- Role 1: Prepare, obtain, store, secure, distribute, administer, dispense and dispose of medical products
- Role 2: Provide effective medication therapy management
- Role 3: Maintain and improve professional performance
- Role 4: Contribute to improve effectiveness of the health-care system and public health



# Asociación (causalidad?)

En España la investigación en *Pharmacy Practice* es escasa y de calidad limitada (no acorde con los indicadores de desarrollo)

En España no hay profesores universitarios exclusivamente dedicados a investigar y enseñar *Pharmacy Practice*

**... porque no creemos que sea necesario?**

Otros países tienen mucha investigación en *Pharmacy Practice*

Otros países tienen profesores universitarios exclusivamente dedicados a investigar y enseñar *Pharmacy Practice*

# Asociación (causalidad?)

La implicación de las universidades en la respuesta a las demandas de la sociedad y el sistema productivo es otro de los ejes sobre los que ha girado la presente reforma. Las universidades deben perseguir una mejor formación de sus graduadas y graduados para que éstos sean capaces de adaptarse tanto a las demandas sociales, como a las demandas del sistema científico y tecnológico.

# LEY ORGÁNICA 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.

## PREÁMBULO

Desde la promulgación de la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades, han pasado cinco años. En este período se han detectado algunas deficiencias en su funcionamiento que aconsejan su revisión. Además, otros elementos del entorno han cambiado e inducen también a realizar modificaciones. Entre estos hechos se encuentran los acuerdos en política de educación superior en Europa y el impulso que la Unión Europea pretende dar a la investigación en todos sus países miembros. Estas circunstancias aconsejan la corrección

# LEY ORGÁNICA 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades.

tural o educativa. Las universidades, además de un motor para el avance del conocimiento, deben ser un motor para el desarrollo social y económico del país. Junto a la investigación básica, la universidad deberá impulsar la transferencia al sector productivo de los resultados de su investigación en coordinación y complementariedad con los demás agentes del sistema de ciencia y tecnología. Una

La Atención  
Farmacéutica  
en la Universidad



## Departamento responsable de la enseñanza de la Atención Farmacéutica.

Plantilla docente. Situación en los diferentes países.

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