EURO-MED-STAT

Working Group on Pharmaceutical Price Indicators

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Price Indicators

These Recommendations have been produced by the: "EURO-MED-STAT Working Group on Price Indicators" and have been approved by all the members of the EURO-MED-STAT Group.

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Price Indicators

The Library of European Union Pharmaceutical Indicators

The EURO-MED-STAT Group

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1- Introduction

Medicines account for a substantial portion of health expenditure (up to 20-21% in some countries), and although often valuable, there may be an opportunity cost if the expenditure could be used in other ways to improve public health to a greater extent.

Pharmaceutical expenditure is rising faster than any other area of health care and this is a source of concern to governments, which strive to maintain equitable access to medicines for the population at an affordable cost.

Prescribing expenditure is made of two elements – first the price, and second the volume of use. This section examines the question of price, in particular whether a database can examine price across Europe in a manner which allows comparisons to be drawn.

There are methodological problems when performing cross-country comparisons of pharmaceutical expenditure and prices (Danzon & Chao, Kanavos & Mossialos). Some studies use very simple methods which have a superficial attraction but which may mislead (Pryor 2002). Possible biases include exchange rate fluctuations and variations in private (out-of-pocket) and public coverage.

Currency conversions are less of an issue now with so many countries using the euro, but a significant number (including new Accession countries) retain national currencies. To eliminate price level differences in inter-country comparisons, conversions using Purchasing Power Parities (PPPs) equalise currencies to allow the purchase of the same basket of goods and services in different countries. It is not certain however whether figures for health care PPP or general PPP should be used. Still, difficulties remain not only because pharmaceutical prices have weakly comparable volume indices, but also because figures for PPP may be out-dated (e.g. OECD data is 1996 health care PPPs, but 2001 general PPPs are available from Eurostat).

One standard source of such information such as IMS simply ignore PPP since part of their concerns are movement of goods across a free European market

In addition, there are challenges in separating out factors that influence medicine prices caused by the structure of the market in each country: different health system structure and financing, divergent regulatory and pricing policies, medicine subsidies, production costs and product mix variations. Furthermore, consideration must be given to where price information is taken from within the distribution chain; this is discussed further below.

A further problem is what medicines or basket of medicines we can examine across Europe. It would be ideal to look at the costs of the same preparation in different countries but such preparations are relatively rare (tables 1-2); at the level of all medicines, only 7% are available across all EU-15 countries.

At the level of individual preparations of medicines, this is going to be even lower (table 3). Also, this risks ignoring the generic market which is very important in many European countries.

There are other hazards: the whole concept of "price" may be a myth – in some countries prices are regulated, in some they are benchmarked or referenced to a cheaper preparation, but in others regulation of the pharmaceutical market takes a different form. For instance in the UK, companies are free to price their products as they wish (except for generic prices – many of them are regulated within defined limits) but government regulates the company profits. So pricing structures in the UK are often quite different to elsewhere, and to get a full picture, one would have to look at all the products produced by a company, and not all the products in a therapeutic area or medicine class. An example for instance is the cost of statins in the UK – 20 mg simvastatin costs the same as 40mg or 80mg, i.e. a flat pricing structure. This is of some importance as the UK is often used as a reference price source for other European countries and therefore it is an advantage to the pharmaceutical industry that they have free pricing in this reference state. This allows them to set very high medicine prices which will influences prices in other countries.

Table 1. Similarities between countries in terms of availability of medicines. The percentage of medicines [Anatomic Therapeutic-Chemical (ATC) Code level 5] available in country 1 and also available in country 2. Year 1999

Country 2	ATS	BEL	DNK	FIN	DEU	IRL	ITA	LUX	NDL	SPA	SWE	UK
Country 1												
Austria	100	59	49	51	81	51	60	63	57	53	48	54
Belgium	72	100	55	54	79	60	67	82	66	61	52	60
Denmark	81	73	100	75	84	67	69	76	76	65	73	71
Finland	78	67	70	100	79	61	68	71	69	60	70	67
Germany	68	54	43	44	100	47	54	59	50	49	42	49
Ireland	65	63	53	51	72	100	58	64	59	55	50	66
Italy	62	56	43	45	66	46	100	58	50	54	42	50
Luxembourg	71	75	52	52	79	56	63	100	60	58	49	57
Netherlands	80	76	65	63	84	65	69	75	100	63	61	69
Spain	69	65	51	51	75	55	68	66	58	100	48	59
Sweden	79	71	74	76	83	65	69	73	72	62	100	70
UK	68	62	55	55	73	65	62	64	62	58	53	100

Source: P. Folino-Gallo, T Walley, J.C. Frölich, A. Carvajal, I.R. Edwards: Availability of medicines in the European Union: results from the EURO-Medicines project. Eur J Clin Pharmacol 2001; 57: 441-6

Table 2. Discrepancies in licensed medicines between the EU countries. Number of products available within each country within a defined ATC code: Antiplatelet agents, Year 2002

available w	Itiliii C	acii cot	111t1 y 11	itilli a	uciiiic	unic	couc.	XII CIPIU	iteret ag	,01103. 1	cai 20	·
	ATS	BEL	DNK	FIN	FRA	GRE	IRL	ITA	NOR	SWE	UK	tot
B01AC06	3	7	1	3	2	3	3	3	1	1	4	11
B01AC07	1	5	1	3	2	2	1	5	1	1	2	11
B01AC04		1	1	1	1	1	1	1	1	1	1	10
B01AC13	1	1	1	1		1	1	1	1	1	1	10
B01AC17	1	1	1	1		1	1	1	1	1	1	10
B01AC05	2	2		1	1	5		22	1	1	1	9
B01AC16	1		1	1		1	1	1	1	1	1	9
B01AC11	1		1	1		1		2	1	1	1	8
B01AC30	2	1		1	1		1		1	1	1	8
B01AC09		1	1					1	1		1	5
B01AC18						1		2				2
B01AC01	1											1
B01AC02								2				1
B01AC03								1				1
B01AC10								1				1
B01AC14	1								•			1

tot = number of countries where the ingredients are available

Source: Sainz M, Carvajal A, Folino Gallo P, Garcia del Pozo J; Grupo de Investigacion Euro-Med-Stat. Availability of drugs in the European Union. The case of antiplatelet agents. Med Clin (Barc). 2003 May 31;120(20):793-4

There is therefore no ideal way of measuring prices and there is no ideal price indicator. Therefore a range of indicators is proposed.

It is important to remember that these are intended as no more than indicators. We stress that these should be used prudently and not misused. For example it would be wrong to use these data as a basis for price setting at a national level: for this purpose, more robust bilateral comparisons would be more appropriate comparing the index country with other individual countries where specific similar products are available.

The more general approach adopted here is only to provide broad indications and comparisons across all of the EU. Our indicators are merely that – they point at potential differences and problems and areas worthy of further exploration, but are not the final truth in themselves.

Table 3. Differences in available pack size in Europe for Captopril 50 mg. Year 2002

number of tablets	ATS	BEL	DNK	FRA	DEU	IRL	ITA	LUX	NDL	SWE	UK
1										•	
20					•						
24							•				
25					•						
28					•				•		
30	•		•	•	•				•	•	
45		•						•			
50					•						
56						•					•
60	•					•					
84											•
90									•		
98					•						
100			•		•	•				•	
200										•	

Source: EUROMEDSTAT Project

Further reading:

Danzon PM, Chao LW. Cross-national price differences for pharmaceuticals: how large, and why? J Health Econ. 2000 Mar; 19(2):159-95.

Danzon PM, Kim JD. International price comparisons for pharmaceuticals. Measurement and policy issues. Pharmacoeconomics. 1998;14 Suppl 1:115-28.)

Kanavos P, Mossialos E. International comparisons of health care expenditures: what we know and what we do not know. J Health Serv Res Policy. 1999; 4:122-6.

Pryor M. Prescription Drugs Are More Expensive in Arkansas than in Canada, Europe, and Japan: Arkansas Price Comparisons. Mark Pryor for U.S. Senate, July 2002

2- Impact of pharmaceutical prices on pharmaceutical expenditure

As stated above, pharmaceutical expenditures are composed of price and volume. In looking for explanations for increasing pharmaceutical expenditures in recent times, the possibilities are:

- increased volume,
- increased prices of existing products, or
- increasing prices on average as a result of change in product mix, in particular due to new products either coming onto the market to treat new areas (expanding volume) or coming onto the market and displacing older medicines.

A recent commercial study (table 4) suggests that it is volume and change in product mix in particular that are the major drivers, and change in prices of existing products is usually a negligible factor. The exact figures in this table are open to question, and we include it only as an example of the relative importance of different factors in increasing pharmaceutical expenditure.

Table 4. Pharmaceutical Expenditure Growth in Selected EU-15 Member States in 2002: Contribution of Different Growth Factors (in %) (assuming static populations)

Country	Change in	New Products	Increase in	Total Growth
	Price of existing	entering the	Volume of pre-	(%)
	products	market (%)	scribing	
	(%)		(%)	
UK	0.00	2.80	8.70	11.50
Spain	0.70	2.60	8.40	11.70
Netherlands	0.00	1.00	8.30	9.30
Germany	-0.20	2.70	5.50	8.00
Italy	-0.50	2.50	3.20	5.20
France	-0.80	2.50	2.30	4.00
Total Europe	-0.40	2.60	5.10	7.40

Source: Nefarma (2002), Market data: Drugs use in international perspective. Annual Report. The Hague: Nefarma

There are however wide variations in price of medicines across Europe – as a broad generalisation, the northern European countries have higher prices but lower volumes of usage compared to the Mediterranean countries. The UK is now considered to have the highest pharmaceutical prices in Europe based on a series of bilateral comparisons with a defined basket of medicines. Such bilateral comparisons often use Laspeyre's or Paasche indices where two countries can be specified, and they have wide use in price comparisons between countries by national reimbursement agencies. But these indices cannot be used to capture the market across the whole of Europe.

These comparisons are revealing for governments and industry concerned with pricing. But many of these issues are outside the control of even national governments.

In contrast, the efficiency of prescribing within each country is a national competency and can be addressed (i.e. given the range of products available within a country, do prescribers tend to use the most efficient products, e.g. generics or other low cost preparations rather than high cost preparations?). Making comparisons in a broader way can be a valuable indicator of the efficiency of prescribing in each country, and this is the focus of our work rather than direct price comparisons.

3- Data availability of pharmaceutical prices in the European Union Member States and Norway

In measuring prices, it is important to take the prices from the same point of the distribution chain, as wholesale and retail prices are marked-up from the manufacturer's price – ideally it should always be taken from the same point in every country, but this is not always possible.

Our aim is to use publicly and easily available data to assess the market and expenditure on medicines. A key question therefore is what data is publicly and readily available in each country. Table 5 outlines the results of our surveys in this regard whose details are given in the document *The Library of European Union Pharmaceutical Indicators-Recommendations for national registers of medicinal products with validated ATC codes and DDD values* (Annex 2- List of national registers of medicinal products and utilisation expenditure data by country; page 19).

Table 5. Number of data sources of pharmaceutical prices at different points in the distribu-

tion chain across European Union Member States and Norway in 2002

	HOSPITAL PRICES	OUT-OF-HOSPITAL PRICES					
		Ex-factory prices	Wholesale prices	Pharmacy retail prices			
Austria	_	3	2	4			
Belgium	_	_	_	4			
Denmark	_	_	2	3			
Finland	_	_	1	2			
France	_	1	1	2			
Germany	_	_	_	3			
Greece	1	_	1	2			
Ireland	_	_	1	**			
Italy	_	1	_	5			
Netherlands	_	4	4	6*			
Norway	_	1	2	2*			
Portugal	_	_	_	1			
Spain	_	_	_	3			
Sweden	_	_	6	6			
UK	_	_	2	1			
TOTAL	1	11	25	45			

Source: EUROMEDSTAT project

Note: * In The Netherlands and Norway, the official pharmacy retail price may be discounted to the patient. In many countries, there are systems of either discounted prices for the state or of "clawback" by the state across the whole payment for the medicines supplied.

^{**} In Ireland the price listed in the GMS Payments Board file is the wholesale price. The pharmacy retail price will vary depending on the patients reimbursement scheme and the pharmaceutical form of the medicine (i.e. non-oral medications are subject to VAT of 21%).

3.1. Hospital prices

As can be seen in the table 5, data on the actual hospital prices is available in only one country. In most countries, each hospital or consortium of hospitals negotiates its own price and discounts from wholesalers or manufacturers and there is a very large lack of information about hospital prices. We concluded therefore that it is not possible to study hospital prices across Europe at present time.

3.2. Out-of-hospital prices

There is a range of prices that could be used in the out of hospital market. Each has strengths and weaknesses. For the definitions see the Annex 1- Glossary (page 27).

3.2.1 Ex-factory prices

Industry sources and national agencies setting reimbursement levels often use ex-factory prices, which are often the basis for negotiations between suppliers and governments who wish to benchmark their costs against other countries. Ex-factory prices are not readily available, and are often calculated from manufacturers' list prices in a very arbitrary way. Nor do they have such public health importance in that these are not what each state actually pays for medicines.

3.2.2. Wholesale prices

Wholesale prices are more widely available than ex-factory prices but from the >75 registers we inventoried for this project it appears that this information is missing from 5/15 countries.

Moreover because of variations in payments to wholesalers and fixed margins in some countries, could perhaps not be considered as being at the same point in the supply chain in all countries.

The role of wholesale's margins and an estimate of the differences between countries is shown in the Figure 1.

3.2.3 Pharmacy retail prices

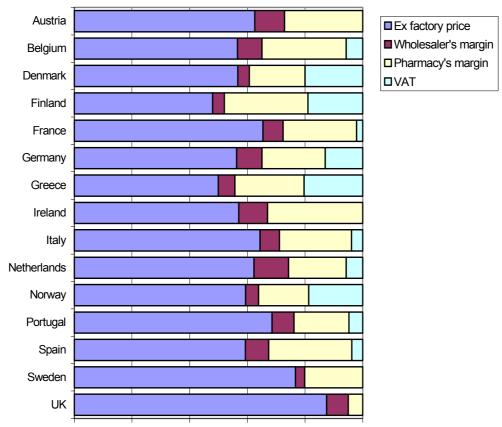
The official pharmacy retail price is the most common and widely available figure (see table 5). But even this is problematic – in some countries this includes a mark up for the pharmacist, but not in others, or it may include value added tax at varying rates. The total cost of medicines to a third party payer may be less than the sum of the retail pharmacy costs, since in some countries, e.g. the UK, the state pays only a discounted fee to the pharmacist. Nevertheless pharmacy retail price has the advantage, compared to ex-factory price, of representing all the components of the system, including differences in distribution costs and taxation.

The role of pharmacy's margins and an estimate of the differences between countries is shown in the Figure 1. The different level of taxation (VAT) is given in Table 6.

In developing EUROMEDSTAT indicators, Pharmacy Retail Price was preferred to ex-factory (industry) price and wholesale price for the following reasons:

- Pharmacy Retail Price is transparent because for most of the licensed medicines it is given in the Official Price List released by the relevant competent Authorities
- Pharmacy Retail Price represents the final price paid by the patient or third payer and it takes in account industry and distribution margins (wholesale and pharmacy) and taxation
- There are differences in price composition (see identified biases) that is important to monitor and harmonise
- Information about ex-factory and wholesale prices is not available in all the countries using the national registers inventoried by this project
 - There is no transparency and no official lists for both ex-factory and wholesale price
- In some case ex-factory price is based on a crude percentage reduction from the pharmacy retail price or derived by pharmacy retail price using more complex mathematical coefficients.

Figure 1. Composition of consumer prices of medicines in the EU-15 Member States and Norway. Year 1999



Source: European Federation of Pharmaceutical Industry Associations (EFPIA)

Table 6. VAT Rates in the EU-15 Member States and Norway

Austria	0% for reimbursed medicines
	20% for the other medicines
Belgium	6%
Denmark	25%
Finland	8%
France	2.1% for reimbursable medicines
	5.5% for non reimbursable medicines
Germany	16%
Greece	8%
Ireland	0% for oral medicines
	21% for the other medicines
Italy	10%
Netherlands	6%
Norway	24%
Portugal	5%
Spain	4%
Sweden	0% for prescription medicines
	25% for OTC medicines
UK	0% for prescription medicines
	17.5% for OTC medicines

4- Data comparability

Issues about the sources of data and their comparability have already been addressed in part: there are some other issues that need consideration.

4.1 Patient co-payment and fees

Co-payments vary enormously across Europe, and there are widespread exemptions based on age, morbidity or income, in most countries. Co-payments are used in part to finance the pharmaceutical expenditure but also in part to increase the awareness of patients of the costs of their therapies. We have excluded such co-payments from the data considered here (except where they might be considered part of the pharmacy retail price e.g. in France and Belgium some medicines are reimbursed at differing rates e.g. 70% 50% 35%. The official price of such medicines therefore in effect includes a patient co-payment

Fees may be paid to the pharmacist for dispensing. In some countries, there is a small fixed fee - others have digressive fees depending on volume of dispensing. Others still allow no fees but the pharmacist income is derived from the profit in the mark up from the wholesalers' price.

In some countries but not in others, VAT is added to medicines. The rates of VAT used will vary from country to country from 0% to 25% (table 6).

In considering prices, we cannot exclude these factors completely. The best approach seems therefore to consider the ex-pharmacy price (pharmacy retail price) as described above, and for each country, to detail what the pharmacy retail price actually means (what it includes or excludes). This transparency acknowledges the weaknesses of using ex-pharmacy prices but makes explicit what is contained therein.

There remain weaknesses: issues of discounts to pharmacies and clawbacks from governments or other payers may not be addressed, as they may not be open or known.

4.2 PPP and currency

We have decided to ignore PPP since pharmaceutical PPPs are not readily available and are often outdated.

Currencies where conversion is necessary should be converted at the annualised rates published by IMF (International Monetary Fund).

Table 7. Elements of a typical pharmacy retail price in each country: What is included

	Is VAT included? If so at what rate?	Is there a pharmacist fee included? If so, at what rate or amount if a fixed fee	list price reimbursed by
Austria	0%	No	No
Belgium	6%		
Denmark	25%		
Finland	8%	No	Co-payment included
France	2.1% 5.5%		
Germany	16%		
Greece	8%		
Ireland	0% 21%	GMS scheme: :€2.98 per item Other schemes: 50% markup + dispensing fee of €2.59 per item	GMS and LTI scheme: no co-payment DP scheme: a deductible of €70 per month
Italy	10%	Dispensing fee is in- cluded in the pharmacy margin	No. Pharmacies are obliged to provide a dis- count for medicines pre- scribed and sold under th National Health Service.
Netherlands	6%		
Norway	24%	Yes, dispensing fee is included in the pharmacy margin	No
Portugal	5%		
Spain	4%		
Sweden	0% 25%		
UK	0%	No	No

^{*} for instance, in France some medicines are reimbursed at differing rates e.g. 70% 50%. The official price of such medicines therefore in effect includes a patient co-payment

5- Indicators

5.1 Methods of development

We suggest the following approach to developing specific price indicators. Comparisons should be based on the package containing the usual maintenance dose for a 28-day period of those medicines used in chronic illness where the patient might be expected to be on long-term therapy.

For shorter term therapy, e.g. antibiotics, the duration of a course should be considered and an appropriate interval specified. The price should be expressed as €/DDD.

The price per DDD may vary from manufacturer to manufacturer and may depend on pack size and dose (larger pack sizes, and higher doses, are typically less expensive per DDD). The pack size and dose studied is therefore an arbitrary decision. We suggest the packages studied should be the closest to the usual maintenance dose for 28 days for chronic therapies or to a duration of a course for short term therapy, in the most (internationally) commonly used formulation (usually tablet/capsule).

For example, for simvastatin (DDD 15mg) the pack size studied for price comparisons should be 20mg for 28 days – the decision to use 20 rather than 10 is, again, arbitrary, but reflects a tendency to use higher doses.

For atorvastatin (DDD 10mg), the pack size would be 10 mg for 28 days.

As described below one could use local patterns for the indicators if one wished only to look at one's own market but this would lose all international comparisons.

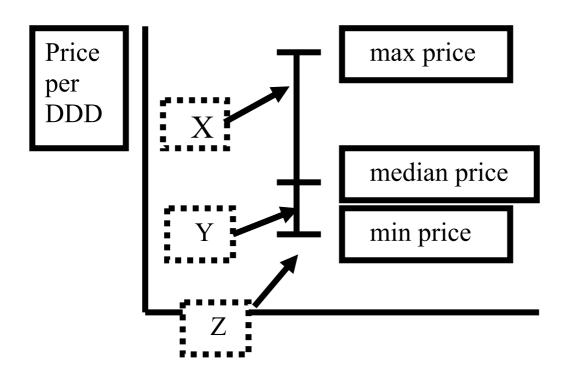
An other alternative is to use the pack/dose most commonly used in a given country. This will allow a better comparison of expenditure per DDD but would limit international comparison.

The price per DDD should be expressed as a maximum or minimum for patches of that size within one country, for instance consider a country where there was more than one product available of a particular medicine. If displayed in this way expenditure data can then be used to interpret the market.

For instance, imagine that x, y and z are represent the expenditure per DDD in three countries.

A country where the *expenditure* per DDD is at the upper end of the distribution of price/DDD (market point X) could be improving the efficiency of its prescribing, in contrast to a country where expenditure per DDD is at market point Y and there is no margin for further improvement of the efficiency.

If a country's expenditure/DDD is outside the range, e.g. point Z, then the pack size studied needs reconsideration.



A word of caution:

Differences in what is recorded as expenditure (e.g. discounts taken into consideration, or pharmacy fees etc) as opposed to price have to be considered in interpreting this comparison with price.

Although such comparisons are primarily best at evaluating use of a single medicine (ATC level 5), they could also be used with some caution to evaluate the market in a whole area if the medicines were clinically very similar (ATC level 4).

Likewise, they are best at evaluating a single market but could (again with caution) be used to compare markets across different countries.

5.2 Indicators

This presentation then gives rise to a number of indicators. The major ones are discussed in this section.

5.2.1 Price per Daily Defined Dose (DDD)

Significance

Price discrimination happens in EU countries. Moreover differences in VAT and distribution costs (mark-ups from wholesaler and pharmacists) can affect the final price.

This means that the same medicines are sold at different prices in different countries.

This indicator is intended to measure the extent of price differentials for the same active ingredient or for a same combination of active ingredients.

Public health objective

To allow countries to compare their pharmaceutical prices with those of other countries and so to help improve the efficiency of the market.

Operational definition

Numerator	Price of the pack in €
Denominator	Number of DDDs in the pack

Benchmark

The lowest national value

The European Union (Member States where the active ingredient is licensed) lowest value

List of data sources

See Annex 3 (Selected Data Sources for Prices of Pharmaceutical Products in the European Union Member States and Norway (page 43)

Relevant institutions using this indicator

This indicator is commonly used in several governmental database.

Validity and Limits

Like-to-like comparisons between similar packs (same strength and size) are confined to a low number of presentation and of countries because of the wide differences between MS in licensed packs (oral forms range from 1 unit to 200 and more units per pack). This indicator allows to compare the price of an active ingredient independently from the national differences in licensed packages.

Need for normalisation

Because an active ingredient can be available in different pharmaceutical forms (i.e. tablets, solution for injection,) the comparison of packs within similar pharmaceutical forms (oral forms only or injectable forms only) is more representative of the national differences.

Identified bias (es)

The price per DDD may depend on pack size and dose (larger pack sizes, and higher doses, are typically less expensive per DDD).

See paragraph 5-Indicators (page 15)

Expected difficulties in calculating the indicator

The indicator can be calculated for the ingredients with an official DDD released by the WHO-Oslo Centre. Some product groups do not have official DDD. Thus a price per DDD can be calculated for most but not all medicines.

In some countries, the pricing of OTC products and non- reimbursed medicines is free and it is not included in the official lists. For these products and for these countries information on price is not always available.

5.2.2 Market Efficiency Index

Significance

The Expenditure per DDD (see also *The Library of EU Pharmaceutical Indicators*. *Expenditure / Utilisation Indicators*) is the money paid by each country for one DDD of a specific active ingredient or for a specific combination of active ingredients.

Different trade names (including generics) of a same active ingredient or of a same combination of active ingredients can have different price per DDD.

This indicator is intended to measure the difference between the actual expenditure per DDD and its lowest price per DDD.

A value of 0.00 means that Expenditure per DDD and Lowest price per DDD have the same value

A value of 1.00 means a 100% difference between Expenditure per DDD and Lowest price per DDD.

High values mean that there are important possibilities of cost minimisation, shifting utilisation from higher to lower price per DDD packages.

Public health objective

To verify the possibility of a cost minimisation, shifting utilisation from higher to lower price per DDD packages.

Operational definition

Numerator	(Expenditure per DDD) — (Lowest price per DDD)
Denominator	Lowest price per DDD

Benchmark

The best value is 0.00. This means that Expenditure per DDD and Lowest price per DDD have the same value and there is no possibility of further cost minimisation.

List of data sources

See Annex 3 (Selected Data Sources for Prices of Pharmaceutical Products in the European Union Member States and Norway (page 43)

Relevant institutions using this indicator

This indicator has been originally developed by the EURO-MED-STAT project.

Validity and Limits

The pack size and dose selected may have a substantial effect on this indicator.

Within a country, it may be more appropriate to select a pack size or dose to calculate price/DDD which differs from the recommended default.

Identified bias (es)

The price per DDD may depend on pack size and dose (larger pack sizes, and higher doses, are typically less expensive per DDD).

See paragraph 5-Indicators (page 15).

Expected difficulties in calculating the indicator

The indicator can be calculated for the ingredients with an official DDD released by the WHO-Oslo Centre. Some product groups do not have official DDD. Thus a price per DDD can be calculated for most but not all medicines.

In some countries price of OTC products and not reimbursed medicines is free and it is not included in the official lists. For these products and for these countries information on price is not always available.

The information about one term of the numerator (Expenditure per DDD) may not be easily available.

5.2.3 Potential savings

Significance

The Expenditure per DDD (see also *The Library of EU Pharmaceutical Indicators*. *Expenditure / Utilisation Indicators*) is the money paid by each country for one DDD of a specific active ingredient or for a specific combination of active ingredients.

It can happen that different trade names (including generics) of a same active ingredient or of a same combination of active ingredients can have different price per DDD.

This indicator is intended to measure the potential savings shifting utilisation from higher to lower price per DDD packs.

Public health objective

To quantify the potential savings that can be obtained shifting utilisation from higher to lower price per DDD packages.

Operational definition

[(Expenditure per DDD) — (Lowest price per DDD)] x DDDs used over a defined period

Benchmark

The best value is 0.00. This means that Expenditure per DDD and Lowest Price per DDD are identical and all the possible savings have been realised.

List of data sources

See Annex 3 (Selected Data Sources for Prices of Pharmaceutical Products in the European Union Member States and Norway (page 43)

Relevant institutions using this indicator

This indicator has been originally developed by the EURO-MED-STAT project.

Validity and Limits

The pack size and dose selected may have a substantial effect on this indicator. Within a country, it may be more appropriate to select a pack size or dose to calculate price/DDD which differs from the recommended default.

Identified bias (es)

The price per DDD may depend on pack size and dose (larger pack sizes, and higher doses, are typically less expensive per DDD).

See paragraph 5-Indicators (page 43)

Expected difficulties in calculating the indicator

The indicator can be calculated for the ingredients with an official DDD released by the WHO-Oslo Centre. Some product groups do not have official DDD. Thus a price per DDD can be calculated for most but not all medicines.

In some countries price of OTC products and not reimbursed medicines is free and it is not included in the official lists. For these products and for these countries information on price is not always available.

One term of the numerator (Expenditure per DDD) may not be easily available.

5.2.4 Ratio of highest to lowest price

Significance

It can happen that different trade names (including generics) of a same active ingredient can have different price per DDD.

This indicator is intended to measure the extent of the difference (%) between package with the highest price per DDD and package with the lowest price per DDD.

Public health objective

To quantify the price differentials (within a country or between countries) to buy a same active ingredient.

Operational definition

Numerator	Highest price per DDD	X 100
Denominator	Lowest price per DDD	A 100

Benchmark

The value 100 means that the licensed packages have the same price per DDD.

List of data sources

See Annex 3 (Selected Data Sources for Prices of Pharmaceutical Products in the European Union Member States and Norway (page 43)

Relevant institutions using this indicator

This indicator has been originally developed by the EURO-MED-STAT project.

Validity and Limits

The pack size and dose selected may have a substantial effect on this indicator. Within a country, it may be more appropriate to select a pack size or dose to calculate price/DDD which differs from the recommended default.

Identified bias (es)

The price per DDD may depend on pack size and dose (larger pack sizes, and higher doses, are typically less expensive per DDD).

See paragraph 5-Indicators (page 15)

Expected difficulties in calculating the indicator

The indicator can be calculated for the ingredients with an official DDD released by the WHO-Oslo Centre. Some product groups do not have official DDD. Thus a price per DDD can be calculated for most but not all medicines.

In some countries price of OTC products and not reimbursed medicines is free and it is not included in the official lists. For these products and for these countries information on price is not always available.

6- Coherence / Differences with the methodology of other international comparisons

6.1. WHO

UNICEF-UNAIDS-WHO-MSF projects. Source and prices of selected drugs and diagnostics for people living with HIV/AIDS. May 2002. Available from WHO/ Department of Essential Drugs and Medicines Policy: www.who.int/medicines

This used ex-factory or free-on-board prices for large bulk purchases, and before import taxes, mark-ups along the retail chain etc.

It is based on manufacturers indicative prices, translated into US \$. Spanish and UK prices are given also for information only and not intended for direct comparison.

Prices are reported as maximum, minimum and median. For many medicines there is a five fold or greater difference between the maximum and the minimum. The audience for this report is the large institutional or national buyers, and the aim is to help them make more efficient purchases. Hence this does not reflect the market in any country or region but only possible purchase prices. There is no link to utilisation or expenditure or to DDD.

The aims and methods of this study clearly differ from ours although the presentation of results as max/min/median has similarities.

6.2. OECD

OECD collects data on expenditure but not on prices.

6.3. Australia

An important report was published in 2002. (**Productivity Commission. International Pharmaceutical Price Differences Research Report**, AusInfo, Canberra 2001)

This report used a large number of bilateral comparisons (e.g. Australia to USA, Australia to UK) with a different product mix in each case.

It therefore stresses that it is not a global comparison, and that it cannot be used to draw comparison for instance between USA and UK.

It is closer in nature to the comparisons that a country might use for price setting. In keeping with this, it used ex-factory prices.

6.4. Canada

The Canadian Patented Medicine Prices Review Board (PMPRB) regulates the maximum prices charged by manufacturers of patented medicines to ensure that they are not excessive.

To obtain this result the PMPRB monitors manufacturers' price for new and existing patented medicines comparing Canadian prices with other countries to ensure they are no greater than manufacturers' prices charged in other countries.

Methods and limits of these comparisons are similar to that described for the Australian Productivity Commission.

6.5. USA

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We have found two studies using almost identical methods and comparing prices of selected medicines for elderly patients in particular states or districts. Comparisons were with various European countries, Japan, Canada and Mexico.

These studies clearly differ in motivation and methods from ours. There was a clear political message in these documents, which were produced as part of a political campaign. The methods used and the conclusions drawn are open to criticism. These studies used a simple data collection of five commonly used medicines branded medicines and compared equivalent doses and packs. No account was taken of PPP or currency exchange values. The medicines selected may have been atypical of the totality of medicines available.

Prescription Drug Pricing in the 7th Congressional District of Maryland: An International Price Comparison. Prepared for Rep. Elijah E. Cummings, Minority Staff Report, Committee on Government Reform and Oversight, U.S. House of Representatives, August 10, 1999

Arkansas Attorney General Mark Prior. **Prescriptions drugs are more expensive in Arkansas than in Canada, Europe and Japan**. Report prepared for the US Senate, July 2002.

Annex 1- Glossary

Co-payment: the amount paid by patients to receive a medicine that is reimbursed by the health care system.

Distribution Margins: the mark-up from manufacturers prices charged by wholesalers and retail pharmacists. In different countries, these may be fixed margins or digressive margins, depending on the volume or value of sales. There may also be "clawbacks" by governments which effectively reduce the margins. These margins and clawbacks are often negotiated by pharmacist associations with the governments.

Expenditure: public expenditure is the moneys spent by the state on pharmaceuticals and reported in the relevant databases (see SOP for expenditures)

Flat pricing: A pharmaceutical pricing is defined flat when different strength have, more or less, the same price. (see also monotonic).

Monotonic pricing: A pharmaceutical pricing is defined monotonic when price is proportionate to the strength of the units contained in the package.

Mark-up: an increase in the price of medicine (the difference between its cost and the price that it is sold for).

Pharmacist Fee: the amount of money that pharmacists are paid for the service that they provide.

Price: this has several possible meanings at different points in the distribution chain, as described below

Price, ex factory. In theory, the price charged by the manufacturer to the whole-saler. Since this information is often confidential, in practice this is either the manufacturer declared price (the wholesaler may actually buy for less) or a calculated price based on the declared wholesaler price and what is thought to be the average margin for wholesalers in that country

Price, wholesale. Price declared by wholesalers at which community pharmacists may purchase a medicine. In practice, pharmacist can often negotiate very substantial discounts for bulk purchase or purchase of a basket of medicines.

Price, Pharmacy retail: The official list price for pharmacy sales to patients, whether reimbursed by the state or privately.

VAT Value Added Tax – is a tax that is added to the price of goods or services. It is charged at different rates in different countries. Medicines are exempt from VAT or are charged at a lower rate than other goods in many countries.

Annexe 2- List of Competent Authorities in Licensing, Pricing and Reimbursement of Medicines in the European Union Member States and Norway

(For a List of Legal Classification and Reimbursement Categories of Medicines see the document "Recommendations for National Registers of medicinal Products with validated ATC codes and DDD values. Annex 5 – Legal classification of medicines in the EU-15 Member States and Norway (page 57) and Annex6 – Reimbursement categories of medicines in the EU-15 Member States and Norway (page 65).

AUSTRIA

Licensing of medicines

Bundesministerium für Soziale Sicherheit und Generationen (BMSG) Federal Ministry of Social Security and Generations Stubenring, 1 A-1010 VIENNA – Austria

http://www.bmsg.gv.at

The Federal Ministry of Social Security and Generations is supported by the "Bundesinstitut für Arzneimittel" (BIFA – Federal Institute for Pharmaceuticals) which has to examine the documents, materials and preparation samples submitted by the pharmaceutical companies for the proofs of quality, efficacy and safety. The BIFA is under the responsibility of the Federal Ministry of Social Security and Generations.

Pricing of medicines

Bundesministerium für Soziale Sicherheit und Generationen (BMSG) Federal Ministry of Social Security and Generations Stubenring, 1
A-1010 VIENNA – Austria
http://www.bmsg.gv.at

According to the 1992 Price Act, the Federal Ministry of Social Security and Generations is authorised to determine a "maximum price which is justified by the national economic situation" after discussion with the Price Commission (a consulting body). Following an agreement between the social partners in 1999, the way the Price Act is applied has been changed. Pharmaceutical companies do no longer have to apply for the approval of a price or a price increase by the Federal Ministry of Social Security and Generations. Instead, a notification procedure has been introduced. If required ? e.g. in case of an excessive price – the Federal Ministry can still fix the price. However, the "reimbursement price" (for further information see below) is more relevant than the "maximum price".

Reimbursement of medicines

Hauptverband der Österreichischen Sozialversicherungsträger Federation of Austrian Social Insurance Institutions Kundmanngasse, 21 A-1030 VIENNA – Austria http://www.sozvers.at

BELGIUM

Licensing of medicines

Ministerie van Sociale Zaken, Volksgezondheid enLeefmilieu
De Algemene Farmaceutische Inspectie / Secretariaat van de Geneesmiddelencommissie
Department of Social Affairs, Health and Environment
Pharmaceutical Inspection / Drug Licensing Commission
Rijksadministratief Centrum
Vesaliusgebouw
B-1010 BRUXELLES – Belgium
http://www.afigp.fgov.be

In the Department "Properties of Medicinal Products", the Section Drug Licensing judges medicines on the basis of three criteria: Efficacy, safety and quality. This administrative unit has the secretariat of the DRUG LICENSING COMMISSION. It also supervises an independent Drug Information Centre (Centre Belge d' Information Pharmaco-therapeutique) (Belgisch Centrum voor Farmacotherapeutische Informatie), which edits a drug bulletin and a drug compendium, distributed freely to all physicians and pharmacists and available on the web: WWW.BCFI.BE or WWW.CBIP.BE Legal texts on the Drug Licensing Commission can be found on:

http://www.afigp.fgov.be/NL%20home/diensten/opsomming%20diensten. Htm

Most new drugs are now licensed through the Central European Procedure. The Commission supervises the Dutch, French, and German versions of the Summary of Product Characteristics and the User Leaflets.

Pricing of Medicines

Commission des Prix Spécialités Pharmaceutiques Commissie voor de Prijzen van Farmaceutische Specialiteiten Pharmaceutical Pricing Commission North Gate III, Koning Albert II-laan, 16 B-1000 BRUXELLES – Belgium http://mineco.fgov.be

Supposed to reach a unanimous decision to formulate a non-binding advice to the Minister of Economic Affairs, who takes the ultimate decision. A decision must be reached after 90 days for POM and 60 days for OTC. Prices of new products are compared to prices in neighbouring countries and to similar therapeutic classes (without a formal reference system) There has been price freezes for all existing medicines for more then 10 years. Price/volume contracts are not really in place because of disagreement on how to classify products as "innovative" In 1996 a 2% price cut on exfactory price for all reimbursed pharmaceuticals was installed, increased to 3% in 1997 In august a 3% price cut was installed for older products (reimbursed for more than 15 y). Copy products have been given a reimbursement price of 16% of the original product in 1997. In 2001, all original products out of patent, and with a generic or copy available, have been given an 16% reimbursement price cut. A 4% sales tax in place since 1997 (3% in 1997).

Reimbursement of medicines

Commissie Tegemoetkoming Geneesmiddelen Commission de Remboursement des Médicaments Drug Reimbursement Commission RijksInstituut voor Ziekte en InvaliditeitsVoorziening (RIZIV) Dienst Geneeskundige Verzorging Tervurenlaan, 211 B-1150 BRUXELLES – Belgium http://www.riziv.be

Members of the Commission are physicians, pharmacists, and health pharmaco-economists, representing the Department of Social Affairs, the Department of economic Affairs, the Universities, the Associations of health professionals, the health Insurers and the Pharmaceutical Industry Asso-

ciation. Companies applying for reimbursement must introduce a application dossier. The Commission has 150 days to complete the motivated proposition, regarding reimbursement category and the basis for reimbursement. The Minister has then 30 days to decide (in case of no decision, the proposal of the company is accepted). Note: The price fixing procedure at the Department of Economic Affairs runs in parallel.

DENMARK

Licensing of medicines

Lægemiddelstyrelsen
The Danish Medicines Agency
Axel Heides Gade, 1
DK-2300 COPENHAGEN S – Denmark
www.laegemiddelstyrelsen.dk

The Danish Medicines Agency is an agency under the Ministry of the Interior and Health. The Danish Medicines Agency administers the legislation on medicinal products, reimbursement on medicinal products and controls pharmacies, medical equipment and euphoriant substances. The main objective of The Danish Medicines Agency is to ensure that medicinal products that are used in Denmark are of satisfactory quality, are safe to use and have the desired effect. The Danish Medicines Agency's three main professional assignments are: to authorise the marketing of medicinal products, to control and monitor medicinal products, companies, pharmacies etc., to follow the development in the economy and consumption of medicinal products.

Pricing of medicines

Indenrigs- og Sundhedsministeriet The Ministry of Interior and Health Slotholmsgade, 10-12 DK-1216 - COPENHAGEN K – Denmark www.im.dk

The Ministry of Interior and Health is responsible for decisions about pricing of medicines, but it is the Danish Medicines Agency which collect the prices from the companies and publish a pricelist for use in the primary health care sector (In Danish the pricelist is named: Specialitetstaksten). Pharmacies charge the same price for medicinal products throughout the country. The Pharmacy Purchase Price (PPP) and Pharmacy Retail Price (PRP) are wherefore identical for all pharmacies. The Ministry of Interior and Health who regulates the calculating consumer prices of medicinal products (The PRP) ensures this. However, OTC's allowed to be sold from pharmacies and other non-prescription stores of retail that are authorised by the Danish Medicines Agency do not have a fixed PPP or PRP and the prices for these products vary from store to store. In principle the price formation is free, but the government has introduced different efforts to avoid steep increases in medicament price levels, see the reimbursement system in Denmark on page 5. The companies can change the prices every other week and The Danish Medicines Agency publishes a new pricelist every other week. In the hospital sector the prices can vary, because they negotiate with the industry and get discounts.

Reimbursement of medicines

Lægemiddelstyrelsen The Danish Medicines Agency Axel Heides Gade, 1 DK-2300 Copenhagen S – Denmark www.laegemiddelstyrelsen.dk

FINLAND

Licensing of medicines

Lääkelaitos National Agency for Medicines Mannerheimintie 166 FIN-00301 HELSINKI – Finland www.nam.fi

Pricing of medicines

Lääkkeiden hintalautakunta Pharmaceuticals Pricing Board Rauhankatu 13 FIN-00170 HELSINKI – Finland www.hila.fi

Reimbursement of medicines

Kansaneläkelaitos Social Insurance Institution Nordenskiöldinkatu 12 FIN - 00101 HELSINKI – Finland www.kela.fi

FRANCE

Licensing of medicines

Agence Française de Sécurité Sanitaire des Produits de Santé (AFSSAPS) French Agency of Sanitary Security of Health Products Bd Anatole France, 143-147 F-93000 St DENIS – France http://agmed.sante.gouv.fr

Pricing of medicines

Comité d'Economie de Produits de Santé (CEPS) (negotiates prices with the industry, for out of hospital products only) Committee of Health Products Economics Ministère de l'Emploi et de la Solidarité Avenue de Ségur, 8
F-75350 PARIS 07 SP – France
http://www.sante.gouv.fr/htm/minister/index.htm

CEPS negotiates prices with the industry, for out of hospital products only

Reimbursement of medicines

Agence Française de Sécurité Sanitaire des Produits de Santé AFSSAPS - Commission de Transparence

French Agency of Sanitary Security of Health Products AFSSAPS - Transparency Commission Bd Anatole France, 143-147
F-93000 St DENIS – France
http://agmed.sante.gouv.fr

GERMANY

Licensing of medicines

Bundesanstalt für Arzneimittel und Medizinprodukte Federal Institute for Drugs and Medical Devices Kurt-Georg-Kiesinger-Alle D-353175 BONN – Germany

Pricing of medicines

Bundesausschuß der Ärzte und Krankenkassen Federal committee of physicians and sick funds Herbert-Lewin-Str.3 D-50391 KOLN – Germany

Reimbursement of medicines

Bundesministerium für Gesundheit (Liste verordnungsfähiger Arzneimittel, Positivliste) Federal Ministry of Health (List of reimbursable medicines, positive list) Mohrenstr. 62 D-10117 BERLIN - Germany

GREECE

Licensing of medicines

National Organisation for Medicines (EOF)
Independent organisation that operates under the auspices of the Ministry of Health and Welfare 284 Mesogion Ave, Holargos
GR-155 62 Athens-GREECE
http://www.eof.gr

Pricing of medicines

Ministry of Development General Secretariat of Internal Commerce Directorate of pricing industrial products and medicines Kaningos Square, GR-101 81 Athens-GREECE http://www.gge.gr

Reimbursement of medicines

Ministry of Health and Welfare
Directorate of Medicines and Pharmacies (List of reimbursable medicines, positive list)
19 Aristotelous Street
GR-104 33 Athens-GREECE
http://www.mohaw.gr

IRELAND

Licensing of medicines

Irish Medicines Board (<u>www.imb.ie</u>)
Earlsfort Centre, Earlsfort Terrace, Dublin 2, Ireland.

"The fundamental role of the IMB is to protect and enhance public and animal health through the regulation of human and veterinary medical products. Among its many activities, the IMB regulates clinical trials, as well as monitoring and inspecting products on the market to ensure their safety and efficacy".

Pricing and Reimbursement of medicines

The General Medical Services division of the The Department of Health and Children (DoHC) (www.doh.ie)

Hawkins House, Hawkins Street, Dublin 2, Ireland.

There is an agreement between the DoHC and the Irish Pharmaceutical Healthcare Association (IPHA) which stipulates that the price of any new medicine should not exceed the lesser of the currency adjusted UK wholesale price and the average of the currency-adjusted wholesale prices in Denmark, France, Germany, the Netherlands and the UK.

ITALY

Licensing of medicines

Commissione Unica Farmaco (CUF) - Direzione Generale per la Valutazione dei Medicinali e la Farmacovigilanza Ministero della Salute

Medicine Commission at the Ministry of Health

Viale della Civiltà Romana, 7

I-00144 ROME – Italy

The Minister of Health is president of the Commission (which is chaired by the Director of the Ministry) and has responsibility about licensing (including withdrawal from the market), pricing and reimbursement. The Members of the Commission are experts of pharmacological and clinical disciplines; some of them are appointed directly by the Ministry of Health, some by the Local Autonomies, which are responsible for pharmaceutical expenditure

Pricing and Reimbursement of medicines

Commissione Unica Farmaco (see above) Medicine Commission at the Ministry of Health Viale della Civiltà Romana, 7 I-00144 ROME – Italy

The prices of the medicines approved under the European procedures CEE 2309/93 (Centralised & Mutual Recognisition) are negotiated between the pharmaceutical companies and a Commission with representatives from the Ministry of Health, Ministry of Economics and other Institutions. This negotiation takes in account the therapeutic value, the expected benefit, and the expected costs. In some cases a higher price for a product has been counterbalanced by a lower price for an other product of the same firm. For the medicines approved under the national procedure an Average European Price is calculated.

THE NETHERLANDS

Licensing of medicines

College ter Beoordeling van Geneesmiddelen (CBG) Medicines Evaluation Board (MEB) Kalvermarkt 53 NL-2511 CB THE HAGUE - The Netherlands

Pricing of medicines

Ministerie van Volksgezondheid, Welzijn en Sport Ministry of Health, Welfare and Sport Parnassusplein 5

NL-2511 VX THE HAGUE - The Netherlands

The prices of medicines are free and set by the market with a limitation: According to the Medicinal Product Prices Act (Wet Geneesmiddelenprijzen), the official pharmacy purchase prices may not exceed maximum prices. The maximum price is the average price of comparable products with same active substance, strength and pharmaceutical product form in Germany, Belgium, France and the UK. This average can only be calculated if the product is available in at least two of the four so called reference countries. The maximum price is recalculated twice a year. Both generics and branded products are subject to this law. Hospital only products which can not be reimbursed if prescribed extramural (outpatient) are not subject to this law. Maximum prices are calculated by:

CIBG-Farmatec Wijnhaven 16 NL-2511 GA THE HAGUE - The Netherlands Postbus 16114 NL-2500 BC THE HAGUE - The Netherlands

Reimbursement of medicines

Ministerie van Volksgezondheid, Welzijn en Sport Ministry of Health, Welfare and Sport Parnassusplein 5 NL-2511 VX THE HAGUE - The Netherlands

The minister takes decisions but is adviced by the Health Care Insurance Board (College voor Zorgverzekeringen).

NORWAY

Licensing of medicines

Norwegian Medicines Agency Sven Oftedalsvei, 6 NO-0950 OSLO – Norway

National Regulatory Authority on assessment and surveillance on new and existing medicines in Norway. It reports to the Ministry of Health.

Pricing of medicines

Norwegian Medicines Agency Sven Oftedalsvei, 6 NO-0950 OSLO – Norway

National Regulatory Authority on assessment and surveillance on new and existing medicines in Norway. It reports to the Ministry of Health

Reimbursement of medicines

Norwegian Medicines Agency and Ministry of Health Sven Oftedalsvei, 6 NO-0950 OSLO – Norway Norwegian Medicines Agency prepares assessment reports, the Ministry of Health decides.

PORTUGAL

Licensing of medicines

INFARMED - Instituto Nacional da Farmacia e do Medicamento National Institute of Medicines and Pharmacy Parque da Saúde de Lisboa P-1749-004 LISBOA – Portugal

Pricing of medicines

Direcção Geral do Comércio e da Concorrência Directorate-General for Commerce and Competition Av. Visconde de Valmor, 72 P-1069-041 LISBOA – Portugal

Reimbursement of medicines

INFARMED - Instituto Nacional da Farmacia e do Medicamento National Institute of Medicines and Pharmacy Parque da Saúde de Lisboa Av Brasil 53 P-1749-004 LISBOA - Portugal

SPAIN

Licensing of medicines

Agencia Española del Medicamento Spanish Medicines Agency C/ Huertas, 75 ES-28014 MADRID – Spain The Spanish Medicines Agency is an independent body from the Ministry of Health

Pricing of medicines

Subdirección General de Economía del Medicamento y Productos Sanitarios (Ministerio de Sanidad y Consumo)

General Subdepartment of Pharmacoeconomics and Economy of other Health Products Paseo del Prado, 18-20

ES-28014 MADRID - Spain

There is an Interministerial Committee of Medicine's Prices that is integrated by representatives of others ministries that share prices decisions.

Reimbursement of medicines

Subdirección General de Asistencia y Prestación Farmacéutica(Ministerio de Sanidad y Consumo) General Subdepartment of Pharmaceutics Assistance Paseo del Prado, 18-20

ES-28014 MADRID - Spain

SWEDEN

Licensing of medicines

Läkemedelsverket Medical Product Agency Läkemedelsverket, Box 26 S-75103 UPPSALA –Sweden

Pricing of medicines

Riksförsäkringsverket The National Social Insurance Board Riksförsäkringsverket S-10351 STOCKHOLM – Sweden

Since October 1st 2002 the responsibility for pricing was transferred to a new authority called Läkemedelsförmånsnämnden.

Reimbursement of medicines

All medicines are reimbursed in Sweden if a price has been negotiated with The National Social Insurance Board. However, from October 1st 2002 a new authority, Läkemedelsförmånsnämnden, is responsible for making decisions also about reimbursement of medicines.

UNITED KINGDOM

Licensing of medicines

Medicines and Healthcare Products Regulatory Agency (formerly Medicines Control Agency) Market Towers, 1 - Nine Elms Lane LONDON SW8 5NQ - United Kingdom

Mission Statement: To safeguard public health by ensuring that all medicines on the UK market meet appropriate standards of safety, quality and efficacy.

Pricing of medicines

Decisions about launching prices are left to the discretion of individual medicine companies, who may negotiate price rises under the terms of the Pharmaceutical Pricing Regulatory Scheme or alternatively may agree price cuts in accordance with this.

Reimbursement of medicines

Department of Health Richmond House, 79 Whitehall LONDON SW8 5NQ - United Kingdom

The default position in Britain is that all licensed medicines are automatically reimbursed by the NHS. Some medicines may be specifically refused reimbursement, although this is rare or may have specific limitations imposed on its reimbursement, e.g. sildenafil. The NHS publishes a "Drug Tariff" which lists the price at which the NHS will reimburse generic products. This however is usually not an imposed price by the NHS but rather an average of the manufacturers declared prices. However from 2003 onwards, and for some key generics, the Drug Tariff represents a maximum price imposed by government.

Annexe 3- Selected Data Sources for Prices of Pharmaceutical Products in the European Union Member States and Norway

For a full list of national data sources, see the document "Recommendations for National Registers of Medicinal products with Validated ATC codes and DDD Values – Annex 2 – List of National registers (page 20).

Some of the sources listed here contain information about price and licensed clinical properties (indications, contra-indications, posology and adverse effects).

AUSTRIA

Österreichische Apothekerkammer: Austria Codex und Warenverzeichnis (Austria Codex and List of commodities/products by the Austrian Association of Pharmacists)

BELGIUM

BCFI-Databank / Banque des Données CBIP (Belgian Centre for Pharmacotherapeutic Information Database)

DENMARK

Lægemiddelstyrelsen (Danish Medicines Agency)

FINLAND

Suomen Apteekkariliiton Lääkevalmisteiden tiedosto (Register of Pharmaceutical Products on Sale in Finland owned by the Association of Finnish Pharmacies)

FRANCE

Comité National Hospitalier d'Information Médicale (CNHIM) - Base de données Thériaque (National Hospital Committee of Medical Information – Theriaque database)

GERMANY

Classification file from the German Medicine Index, Research Institute of the AOK (WIdO)

GREECE

National Formulary of the National Organisation of Medicines (EOF)

IRELAND

Reimbursement files from the General Medical Services Payments Board

ITALY

Ministero della Salute- Banca dati dei farmaci registrati (Ministry of Health-database of licensed medicines)

THE NETHERLANDS

Z-Index Den Haag / Ministerie van Volksgezondheid, Welzijn en Sport Den Haag (Z-Index The Hague / Ministry of Health, Welfare and Sport The Hague)

NORWAY

Norwegian Pharmacy Association

PORTUGAL

INFARMED- National Institute of Medicine and Pharmacy

SPAIN

Catalogue of Pharmaceuticals Specialities Consejo General de Colegios Oficiales de Farmacéuticos: Catálogo de Especialidades Farmacéuticas (Pharmaceuticals Association)

SWEDEN

Apoteket - National Corporation of Swedish Pharmacies

UNITED KINGDOM

British National Formulary

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