Global Access to Medicines Challenge. Time for a new approach?

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4th PPRI Conference, Vienna, 23-24 October 2019
Interest declaration

- Travel and accommodation to attend this meeting paid by the organisers
- My time is not paid
- Self-employed: work for not-for-profits, governments, UN.
- Our work is open access and freely available on: www.medicineslawandpolicy.org
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20 years of meds price development

ARVs
15,000 $
1999

SOF
84,000 $
2013

Orkambi
195,000 $
2017

Luxterna
850,000 $
2018

Zolgensma
2.1 mil$
2019

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# Medicines Pricing and Cost

## Cancer medicines

<table>
<thead>
<tr>
<th>Medicine (Indication)</th>
<th>Lowest-highest list prices in EU</th>
<th>Target price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bortezomib (Multiple myeloma)</td>
<td>$982 (Spain) - $1,123 (UK) per month</td>
<td>$255 per month</td>
</tr>
<tr>
<td>Dasatinib (Chronic myeloid leukaemia)</td>
<td>$2,146 (UK) - $3,624 (Latvia) per month</td>
<td>$12 per month</td>
</tr>
<tr>
<td>Everolimus (Breast cancer)</td>
<td>$3,155 (UK) - $3,958 (Latvia) per month</td>
<td>$1,086 per month</td>
</tr>
<tr>
<td>Gefitinib (Lung cancer)</td>
<td>$1,786 (France) - $2,568 (Latvia) per month</td>
<td>$13 per month</td>
</tr>
<tr>
<td>Imatinib (Chronic myeloid leukaemia)</td>
<td>$2,261 (Latvia) - $32,906 (Spain) per year</td>
<td>$172 per year</td>
</tr>
<tr>
<td>Erlotinib (Lung, pancreatic and others)</td>
<td>$26,416 (France) - $36,678 (Latvia) per year</td>
<td>$240 per year</td>
</tr>
<tr>
<td>Lapatinib (Breast cancer)</td>
<td>$33,549 (Spain) - $49,887 (Latvia) per year</td>
<td>$4,020 per year</td>
</tr>
<tr>
<td>Sorafenib (Kidney and liver cancer)</td>
<td>$45,162 (France) - $67,877 (Latvia) per year</td>
<td>$1,450 per year</td>
</tr>
</tbody>
</table>

## Human Immunodeficiency Virus (HIV) and Hepatitis C Virus (HCV) medicines

<table>
<thead>
<tr>
<th>Medicine (Indication)</th>
<th>List price/ pill in UK</th>
<th>Target price/ pill</th>
<th>Current price/ treatment in UK</th>
<th>Target price/ treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daclatasvir (HCV)</td>
<td>$379.44</td>
<td>$0.08</td>
<td>$31,872.96</td>
<td>$6.72</td>
</tr>
<tr>
<td>Darunavir (HIV)</td>
<td>$12.90</td>
<td>$1.45</td>
<td>$387 a month</td>
<td>$43.50 a month</td>
</tr>
<tr>
<td>Efavirenz+emtricitabine+tenofovir (HIV)</td>
<td>$23.09</td>
<td>$0.15</td>
<td>$692.70 a month</td>
<td>$4.50 a month</td>
</tr>
<tr>
<td>Ledipasvir+sofosbuvir (HCV)</td>
<td>$603.26</td>
<td>$1.02</td>
<td>$50,673.84</td>
<td>$85.68</td>
</tr>
<tr>
<td>Sofosbuvir (HCV)</td>
<td>$541.40</td>
<td>$0.57</td>
<td>$45,477.60</td>
<td>$47.88</td>
</tr>
<tr>
<td>Tenofovir disoproxil fumarate (HIV)</td>
<td>$8.85</td>
<td>$0.07</td>
<td>$265.50 a month</td>
<td>$2.10 a month</td>
</tr>
</tbody>
</table>
Patent and regulatory market exclusivity


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Patents


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Patents

- Right to exclude others from making, using, offering for sale, selling, and importing the patented product (or a product made with a patented process)
- Minimum 20 years upon application
- Patents are national – global patent application procedures exist (WIPO PCT) but a global patents do not.
- Social policy tool to encourage innovation -> comes with a cost
- Patent law has public interest safeguards: e.g. compulsory license
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Patents, TRIPS Agreement and access to HIV treatment
http://www.who.int/bulletin/volumes/96/3/17-199364.pdf
Medicines Patent Pool

• Voluntary licensing
• Established in 2010 for HIV
• All WHO recommended regimen
• 87-91% of adult PLHIV covered and 99% of children
• Expanded to TB and HCV
• And all WHO Essential Medicines
PATENTS ARE PERHAPS THE LEAST OF OUR WORRIES?
Supplementary Protection Certificates


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Supplementary Protection Certificates

- Up to **5 years of additional patent-like protection** to a registered medicine

- To compensate for lack of commercial exploitation before the medicine’s regulatory approval & increase pharma R&D in EU
  - Ensure **15 years of effective patent protection**
  - Deemed necessary "to cover the investment put into the research"

## Higher prices of medicines with SPCs

Example of the HIV medicine TDF/FTC (Truvada)

<table>
<thead>
<tr>
<th>Country</th>
<th>SPC status</th>
<th>Price (30 tablets) in €</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Netherlands</td>
<td>Never granted</td>
<td>30.65</td>
</tr>
<tr>
<td>France</td>
<td>Revoked</td>
<td>170</td>
</tr>
<tr>
<td>Switzerland</td>
<td>In force</td>
<td>800</td>
</tr>
</tbody>
</table>
Data Exclusivity

Data Exclusivity 1/2

- Data exclusivity was first introduced in the EU in 1987
  - 6 years / 10 years biologics
  - 2004 EU exclusivity regime expanded: ‘8+2+1 rule’

- To **protect the investment** in the production of test data needed to obtain marketing authorisation by **preventing use by generic companies** for a certain period of time

- During the period of data exclusivity, a generic **competitor product cannot be considered for registration**

Data Exclusivity 2/2

- Data exclusivity is automatic:
  - does not require an application nor evidence of its need
  - data exclusivity is granted regardless of the level of investment in generating the test data
  - quietly enforced through medicines regulation

- No international obligation to provide data exclusivity
  - WTO TRIPS 39.3: protect certain kind of data related to new chemical entities (NCEs) against unfair commercial use
  - A majority of WTO members do not provide data exclusivity

- EU generally requires data exclusivity commitments in Free Trade Agreements (FTAs)
Data Exclusivity - the case of Ukraine

- EU-Ukraine DCFTA -> 5-year data exclusivity
- Sofosbuvir not patented in the Ukraine
- Generic company Pharco\textsuperscript{st} to apply for marketing authorisation (MA) (granted 18.11.15)
- Originator Gilead granted MA on 9.10.15 claiming DE until 2020
- Under legal pressure (incl. ISD threat) Ukraine revoked Pharco’s MA
Orphan Medicinal Products


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Orphan Medicinal Products

- Targets rare diseases ≤ 5 patients/10,000 of population

- Estimated to be at least 8,000 such rare diseases and c. 30 million EU citizens affected

- A mix of push and pull incentives
  - Protocol assistance
  - Fee waiver
  - Framework for EU and Member State R&D funding
  - 10 year market exclusivity

Regulation EC 141/2000
Gaming the Orphan Drug Act: CDCA in the Netherlands

AMC maakt duur middel voortaan zelf

Het AMC bereidt het middel CDCA (chenodeoxycholzuur) voor, een middel dat gebruikt wordt bij het behandelen van zeldzame stofwisselingsziekten. De AMC heeft dit middel thans in huis en bereidt het voor. Het Amsterdamse academische ziekenhuis doet dit, omdat de Leveranciers geen producent meer van dit middel zijn. Het AMC heeft de nodige ervaring in het bereiden van medicijnen in eigen apotheek. Ook patiënten van buiten het AMC kunnen het middel kopen. Volgens het AMC was het moeilijkste om het middel in eigen apotheek te bereiden. Uiteindelijk is in China een producent gevonden die het middel voor AMC kan leveren en voldoet aan de zuivere vereisten.

CDCA – Rx for gallstones since 1976
Off label used for CTX -€ 308,- pppy
Leadiant obtained marketing rights and withdrew existing products
2004 obtained orphan drug designation based on presentation of 2 small trials
Became sole supplier
Increased price to € 158.000 pppy
Hospital pharmacists started to make it in house
New medical therapies – Pills or Skills?

- **CAR-T** - blood cancer treatment
  - Yescarta $373,000 Kymriah $475,000 for single dose
  - Cost of production estimates -> $20,000

- Gene therapies, cell therapies
  → Products or therapeutic methods?

... Pills or Skills?
TRIPS Article 27 3(a)

Patentable Subject Matter

... Members may exclude from patentability inventions, the prevention within their territory of the

to protect *ordre public* or morality, including to protect human, animal or plant life or health or to
provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability:

(a) diagnostic, therapeutic and surgical methods for the

of humans or animals;
CAR T Success Leads to Massive Investment in Cell Therapy

Source:
Aditi Krishnamurthy, Michelle Teicher, Benjamin Leibowitz, Jim Tornatore, Filippo Petti & John Bishai (Wells Fargo)
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High Medicines Pricing a Global Issue
Dutch Ministers on access to medicines:

“We cannot achieve any real progress without acknowledging that the current patent-based business model and the way we apply international patent rules need to change. The system is broken. Patent and intellectual property exclusivities are the only cornerstone of this model. Companies can ask the price they like. This will no longer do. We need to develop alternative business models. And if public money is used for the development of new medicines, agreement upfront is needed about what this public investment will mean for the final price. We believe that companies must provide full transparency regarding the costs of research and development (R&D).”

NL Ministers E. Schippers (Health) and L. Ploumen (Foreign Trade and Development Cooperation), speaking in the Lancet.

2006 EU council decided to review pharmaceutical incentive systems” to strengthen the balance in the pharmaceutical systems in the EU and its Member States” This review is ongoing.


Without essential medicines, no health system can ensure that the population it serves progressively realises its right to health. Yet essential medicines policies have received insufficient attention...”
Time for a new approach

- Sufficiency principle in granting of incentives -> when is enough enough?
- Greater transparency price and cost
- Different financing models for R&D -> adequate resources are needed but delink from price
Thank you!

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For background sources please visit:
www.medicineslawandpolicy.org
http://tripsflexibilities.medicineslawandpolicy.org/