ILF/CIPHER Thematic Roundtable on Paediatric ARVs:

Stimulating development of the most needed formulations

Room St. Moritz, Starling Hotel, Geneva, Switzerland

Monday, 7 March 2016, 13:00 – 16:30 CET
EU-USA regulatory frameworks for paediatric drugs

<table>
<thead>
<tr>
<th>EMA</th>
<th>FDA</th>
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<tbody>
<tr>
<td>Paediatric Investigation Plan (PIP)</td>
<td>Pediatric Study Plan (PSP)</td>
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Since 2007, the EMA and the FDA hold monthly **teleconferences to address differences** in approaches for paediatric development (so-called ‘paediatric cluster’).

**Japan** (PMDA, MHLW) **Canada** (HC) and **Australia** (TGA) have since joined and **contribute** to this work.
### EU-USA regulatory frameworks for paediatric drugs

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The goal of each programme is the same

Paediatric drug development is mostly mandatory

**More paediatric clinical trials** are taking place, **more medicines are approved** for children, **more pharmaceutical forms** are made available to children, and **better product information** is available on the use of these medicines in children

*Information courtesy of Agnès Saint-Raymond (EMA) and Jeffrey Murray (FDA)*
EU-USA regulatory frameworks for paediatric drugs

EMA
Paediatric Investigation Plan (PIP)

FDA
Pediatric Study Plan (PSP)

Partial or full **deferrals** are possible until after adult approval

Partial or full **waivers** are possible when the medicine is likely to be unsafe or ineffective in children, when the condition does not occur in children, or when the development would not bring significant therapeutic benefit
Benefits and challenges

Benefits

• Robust approaches
• Systematic inclusion of paediatrics

Some challenges remain

• Systems of waivers on a case-by-case basis do not favour overall, long-term coordination (i.e. all drugs are treated as equally important, there is no prioritization)
• PIP/PSP are triggered by development of adult drugs and EMA/FDA have no system to incentivize the development of specific, priority drugs for paediatrics
Most needed paediatric ARV formulations – *PADO priorities*

New formulations of **existing drugs**

<table>
<thead>
<tr>
<th>FORMULATIONS of existing ARVs</th>
<th>0-3 yrs</th>
<th>3-10 yrs</th>
<th>10 yrs +</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC/3TC/EFV</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LPV r 4 in 1</td>
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<tr>
<td>DRVr &amp; ATVr</td>
<td>FIRST LINE</td>
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<tr>
<td>Mid-term (5 yr)</td>
<td>ABC/3TC/DTG</td>
<td>TAF/3TC/DTG</td>
<td></td>
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<tr>
<td>Long term (10 yr)</td>
<td></td>
<td>TAF/3TC/DTG</td>
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<table>
<thead>
<tr>
<th>New compounds</th>
<th></th>
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<tbody>
<tr>
<td>RAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DTG</td>
<td></td>
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<tr>
<td>NVP 20 mg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-term (5 yr)</td>
<td>AZT/3TC/RAL or LPV/r</td>
<td>AZT/3TC/DRV/r</td>
<td>TAF/3TC/DRV/r</td>
</tr>
<tr>
<td>Long term (10 yr)</td>
<td>AZT/3TC/LPV/r</td>
<td>RPV/DRV/r or AZT/3TC/DRVr</td>
<td></td>
</tr>
</tbody>
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Information courtesy of Martina Penazzato (WHO)
Overview of ARV approval
(example with FDA data)

Data on ARV approval obtained from FDA website and other sources
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(example with FDA data)

All ARVs

Most needed ARVs for paediatric use (PADO priorities)

- Approved for all paediatric ages
- Approved for some paediatric ages
- Approved for adults only
- In the pipeline

Data on ARV approval obtained from FDA website and other sources
Overview of ARV approval
(example with FDA data)

Data on ARV approval obtained from FDA website and other sources

All ARVs

Most needed ARVs for paediatric use (PADO priorities)
What if we could take a different approach?
What if we could take a different approach?

What this conversation is about

- This is **not** about questioning the utility of PIP/PSP
- Focus on paediatric HIV medicines only
- Recognizing that not all ARVs (or ARV formulations) are priorities for the paediatric population
- **Brainstorming** on leveraging regulatory approaches to optimize the use of resources in paediatrics
- **Fast tracking** the development of the most needed paediatric ARV formulations
What if we could take a different approach?

In other words…

- Working together to be more effective

- Optimizing
  - Financial resources
  - Paediatric patients for clinical trials
  - Time

- Using resources differently
  - Preventing waste of resources for formulations that are not needed
  - Ensuring contribution of all parties involved

- Prioritizing formulations in cases where a global system for consensus ranking is available (e.g., PADO)
What if we could take a different approach?
Two pathways for ARV manufacturers...

Completing a PIP/PSP
What if we could take a different approach?

Two pathways for ARV manufacturers...

**Pathway A:**
*Completing a PIP/PSP*

- PIP/PSP
- PIP/PSP waived

- Independent pooled R&D fund

- Partnerships to perform clinical and pharmaceutical development of most needed ARVs (PADO priorities)

- Voluntary license covering IP and know how and open to any manufacturer (with royalty system?)

**Pathway B:**
*Contributing to a pooled R&D fund*
Let’s think
– And discuss after the coffee break…