The Global Accelerator for Paediatric Formulations (GAP-f)

Accelerating the development and uptake of the most needed drug formulations for children

Sebastien Morin, Jennifer Coho, Marissa Vicari, Paul Domanico, Linda Lewis, Melynda Watkins, Fernando Pascual, Janice Lee, Nandita Sugandhi, Martin Eisenhawer, Carmen Perez-Casas, Martin Auton, George Sibbery, Carlo Giaquinto, Martina Penazzato, On behalf of GAP-f partners

1 International AIDS Society, Switzerland
2 Elizabeth Glaser Pediatric AIDS Foundation, USA
3 Clinton Health Access Initiative, USA
4 Medicines Patent Pool, Switzerland
5 Drugs for Neglected Diseases initiative, Switzerland
6 ICAP, USA
7 World Health Organization, Switzerland
8 UNITAID, Switzerland
9 The Global Fund to Fight AIDS, Tuberculosis and Malaria, Switzerland
10 Office of the U.S. Global AIDS Coordinator, USA
11 Paediatric European Network for Treatment of AIDS, Italy

INTRODUCTION

Limited treatment options and sub-optimal formulations have contributed to poor adherence and outcomes for children living with HIV. Despite the need for expanded and improved options for paediatric treatment, significant structural and technical barriers to ensuring that the most needed formulations are developed for children remain.

CHALLENGES FOR DEVELOPING PAEDIATRIC DRUG FORMULATIONS

• Small markets in high-income countries do not stimulate development of formulations adapted to paediatric needs
• Current practice of sequential enrolment of different age groups into PK studies and clinical trials delays progress
• Drug absorption, distribution, metabolism and elimination changes lead to different PK/PD across ages
• Child-friendly formulations (taste-masked, scored tablets in dispersible, chewable or crushable forms or granules) that cover the entire weight spectrum are needed
• Limited interaction of industry with the research and public health community on paediatric study plans (PIP/PSPs) results in missed opportunities for alignment
• Uptake and demand generation for new formulations, when developed, remain slow due to lack of adequate prioritization of paediatric populations and the reluctance of health care providers who may not be comfortable with early adoption of novel paediatric formulations.

THE GLOBAL ACCELERATOR FOR PAEDIATRIC FORMULATIONS (GAP-f)

The GAP-f is a collaborative framework that aims to expedite development and uptake of priority paediatric formulations for key disease areas facing similar market challenges, such as HIV, TB and viral hepatitis [1]. The GAP-f, as a facilitating platform, will prioritize product development within clinical priorities indicated by WHO-led expert groups to improve the treatment portfolio.

It will support pre-approval processes by enabling the work needed to incentivize formulation development (or reformulation of existing drugs); facilitating the alleviation of intellectual property barriers; generating clinical evidence that can meet regulatory requirements; working towards achieving prioritized commitments from originators and helping them develop flexible PIP/PSPs; providing market analytics to support decisions across all stages; and promoting prioritization within regulatory approval processes required to achieve full uptake of new formulations.

The GAP-f will also support post-approval processes by accelerating product introduction through early engagement with ministries of health; providing tools for demand generation with healthcare workers and community advocates; promoting national approval processes; incentivizing manufacturers; and coordinating procurement to catalyse uptake.

IMPLEMENTING THE GAP-f IN A THREE STAGE PROCESS [2]

Stage 1 – Development of a strategic framework as well as promotion of key regulatory efficiencies (through increased coordination of the PIP/PSP processes in the EU and US) and visibility on the future market of individual priority products

Stage 2 – Testing of the acceleration model for feasibility and results, building on the work of existing platforms such as the Paediatric HIV Treatment Initiative (PHTI) and including innovative approaches to incentivize generic drug development

Stage 3 – Launch of the GAP-f as a fully functioning, sustainable structure informed by the evaluations of Stages 1 and 2

LOOKING FORWARD

The current approach to paediatric drug formulation development results in a significant delay in access to priority medicines, with children suffering and dying unnecessarily.

The GAP-f brings together a coordinated and purposeful clinical, product development, and commercialization strategy, with an implementation plan for paediatric drugs. This collaborative framework will optimize resources and accelerate the timelines for paediatric drug formulation development, regulatory filings and commercialization.

Next steps include further defining the financial interventions required, identifying additional disease areas and defining the final set up of the GAP-f. Ongoing feedback from drug formulation experts and other stakeholders will be essential to make progress.

GLOBAL PAEDIATRIC HIV COMMUNITY COMMITMENTS

In November 2017, a High-Level Dialogue on Scaling Up Early Diagnosis and Treatment of Children and Adolescents took place (see: http://bit.ly/2tCAd4). Key principles of the GAP-f were the basis of discussion, which led to an action plan including an impressive list of commitments from industry, regulators, UN agencies and other stakeholders.

The commitments from the Rome action plan promote three key principles: Focusing on priority paediatric drug formulations; Accelerating development, review, and introduction of paediatric formulations; Collaborating to expedite the development and introduction of paediatric products.

ACKNOWLEDGEMENTS

The authors thank GAP-f partners and the many stakeholders who have informed the GAP-f development.

REFERENCES


For more information, please contact sebastien.morin@iasociety.org