GRiP – Global Research in Paediatrics

Mark Turner
University of Liverpool
Liverpool Women’s Hospital
Our starting point

Drug development and use is hampered by:

• Inconsistency
• Inefficiency
• Inappropriate methods and trials
Our starting point

Drug development and use is hampered by:

• Inconsistency
• Inefficiency
• Inappropriate methods and trials
The needs

Disseminate good practice (education and training)

Develop good practice
**General objectives**

To facilitate the development and promote the availability of medicines for children by reducing the fragmentation of ongoing efforts in relevant fields of research. In addition, GRIP aims to create consensus on international standards, methodologies and tools for paediatric research.

The day-to-day work of the consortium will primarily focus on:

> The development of a Paediatric Clinical Pharmacology Training Program;
> Filling important “gaps” in paediatric medicines research by validation and harmonisation of research tools specific for paediatrics;
> Sharing of strategies and plans;
### Final partnership

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<tr>
<th>N.</th>
<th>Participant organisation name</th>
<th>Acronym</th>
<th>Country</th>
<th>Lead Scientist</th>
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<td>Hospital For Sick Children</td>
<td>Sickkids</td>
<td>Canada</td>
<td>Shinya Ito</td>
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Geneva 21° November 2011
Epidemiology

• The is a lot of data about medicines use in electronic databases
• Software should allow data-sharing to facilitate
• Safety monitoring

Miriam Stirkenboom
Epidemiology

- Integrate existing databases
- Recommendations for governance and ethics
- Map terminologies and harmonize data
- Methodology for studies of drug and vaccine utilization studies, disease incidence / prevalence, drug and vaccine safety
Inter-operability

• Multiple, isolated small studies do not help patients
• Working together is possible, but complex

Martin Offringa
Steven Hirschfield
Inter-operability

• Develop standardized sets of relevant outcome measures in paediatric research
• Develop guidance to reduce the risk of bias of paediatric trials.
• Develop guidance for harmonization of information given to parents and patients in the recruitment process.

www.starchildhealth.org
Inter-operability

• Develop guidance for Data Safety and Monitoring Committees (DSMCs) in paediatric research.

• Identify gaps and coordinate efforts to harmonise procedures and methodologies regarding the use of outcome measures, endpoints and biomarkers in efficacy and safety trials.

• Harmonise terminology, data collection, data sharing.
New methods

• Drug development programmes in children need to be considered on a case-by-case basis depending on the drug, the condition and the target population.

Adriana Ceci
New methods

1. to achieve a scientific consensus on:
   a. the role of PK/PD modelling in paediatric drug development to be proposed at regulatory level;
   b. the use of simulation to reduce the number of children enrolled in trials and the number of samples for lab tests;
   c. how the extrapolation methodology (bridging approach) can be used in regulatory procedures;

2. to evaluate, in the context of some collaborative trials, new approaches to clinical drug development based on innovative approaches.
Formulations

• Central to age-appropriate medicines
• Big block to trials

Catherine Tuleu
Ian Wong
Tony Nunn
Formulations

• Training for formulation scientists about paediatrics
• Training for Pharmacists and Paediatricians about formulations.
• Track needs in formulation science for children
Neonates

- Identify key blocks to high-quality clinical drug development in neonates and carry out specific actions to remove these blocks.

Adolf Valls-i-Soler
Evelyne Jacqz-Aigrain
Mark Turner
GRIP GUIDANCE DEVELOPMENT
Agreed between WP3 and WP4

Assessment process
- Research Question
- Environmental Scan
- Systematic Review

GRIP evaluation
- First Draft Recommendations
- Appraisal Phase
- Second Draft Recommendations
- Survey
- Experimental phase
- Final Draft Recommendations
- Delphi Process
- Consensus meeting

Deliverable
- Final GRIP Deliverable

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Examples

• “True positives” for comparing drug surveillance databases
• Pain
  – Comment on draft guideline about drug development for European Medicines Agency
  – Extrapolation from adult data
  – Sample sizes
Essential Medicines

• Global perspectives
  – Issues arising in EU / North America
  – Issues arising in other parts of the world

• Methodologies

• Specific Medicines

• Quality Assurance of guidelines and infrastructure

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Essential Medicines

• Work through list
  – Identify licensed medicines (EU, AUNZ, NA, India)

• Examine problems
  – Find suitable, marketed products
  – Determine optimal solution (manipulation)
  – Educate / train
  – If necessary, extemps
  – Characterise – determine optimal solution
Essential Medicines

- Establish links with EMLC
- Establish links with countries
- GRiP can provide baseline resources
  - Some doing
    - 0.5 FTE Pharmacist
    - PhD students
  - 0.5 FTE Co-ordinator
- Co-ordinator
  - Association of Commonwealth Pharmacists
  - FIP

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Essential Medicines

• Joint working to:
  – Inform
  – Influence
  – Benchmarking

• Enormous benefit from WHO backing:
  – Adoption of recommendations
    • Which committee?
    • Which recommendations for WHO / GRIP
  – Other types of support