Challenges and Achievement: Japanese Regulatory View

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Agenda

1. Background: What is burdens for development of pediatric medical devices?

2. Measures to meet unmet medical needs in Japan

3. Significance of HBD-for-children activity

4. Conclusion
What is the burdens for development of pediatric medical devices?

We have done a questionnaires about development of pediatric medical devices to industries in the Japan and U.S. through HBD for children activities.

“Small market” is majority opinion.

Variety of opinions are expressed.

- Development cost
- Clinical trial
- Application and approval
- Designing of device
Measures to meet unmet medical needs in Japan

- Program for requesting medical devices with high clinical needs started in 2006
- Application with a clinical evaluation report started in 2008 (Notification by MHLW, No. 0804001)
- Support program for medical device used for treatment of orphan disease started in 2013
- New Ministerial Ordinance for Enforcement of the Act on Securing Quality, Efficacy and Safety of Pharmaceuticals, Medical Devices, Regenerative and Cellular Therapy Products, Gene Therapy Products, and Cosmetics in 2014
- Scientific advisory board about pediatric medical devices was held in 2014-2015
- SAKIGAKE Designation System started in 2015
- Fast-break scheme for innovative medical devices started in 2017
- Subsidization program for application of pediatric medical device started in 2019
## Fast-break scheme for innovative medical devices

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<thead>
<tr>
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<th>Original</th>
<th>Fast-break scheme</th>
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<tr>
<td>Clinical data which is submitted when the device is applied</td>
<td>a prospective clinical trial under GCP or clinical evaluation report</td>
<td>Reliable clinical data (GCP trial is not always necessary)</td>
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<td>Review term</td>
<td>12 months (if brand-new medical device)</td>
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<tr>
<td>Post-marketing surveillance</td>
<td>If need</td>
<td>Necessary</td>
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<tr>
<td><strong>Collaboration with academic society at the post-marketing phase</strong></td>
<td>If need</td>
<td>Necessary</td>
</tr>
<tr>
<td>Increase facilities by stages for safety use of the medical device at the post-marketing phase</td>
<td>If need</td>
<td>Necessary</td>
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**Collaboration between regulatory, clinicians and manufactures is necessary!**

The program was legalized in the Pharmaceutical and Medical Device Act last month!
Subsidization program

Target devices
A medical device for treatment of pediatric or congenital disease which was selected by a program for requesting medical devices with high clinical needs

Subsidization

MHLW subsidizes maximum 90% of a regulatory application fee of pediatric medical devices.
(The fund is limited.)

Very new!

(The program just started in September 2019!!)
Significance of the HBD-for-children activity

Scientific sessions related in the activity were held in following conferences!

Activity of HBD-for-children has been globally recognized.
Significance of the HBD-for-children activity

The collaboration among regulatory, industry, and academia in both Japan and U.S.A has made it easier to conduct global clinical trials.

First Japan-US global clinical trial of pediatric medical device started!

The Harmony™ TPV system (Medtronic, Inc)

Self-Expanding Stent Graft
Porcine Pericardial Tissue Valve
Significance of the HBD-for-children activity

**Title:** “Research project for promotion of early development of pediatric medical devices”

1. **Finding issues and solutions of clinical trials in the pediatric field**
   - Capturing the issues around Japan-US clinical trial of pediatric medical devices and proposing the solutions by the following actions
     - Questionnaire to pediatricians and industries
     - Proposal for the solutions to the challenges
   - Finding similarities and differences of GCP inspection processes between Japan and USA by observing the GCP inspection by FDA and PMDA each other

2. **Utilization of real world evidence**
   - Proposing requirements for utilization of real-world-data of pediatric medical devices by the following actions
     - Hearing survey from registries of Japan-US
     - Investigation past experiences of using registry data for regulatory use
     - Measuring for assuring minimum quality and quantity of registry data
Goal of the research project

Making suggestions for effective development

1. Streamlining the process of clinical trial
   - Infrastructure development of clinical trial
   - Efficient GCP inspection for global clinical trial

2. Utilization of registry database
   - Use for post-marketing surveillance
   - Continual organizational operation of registry

3. Proposal for consistent rational evaluation methods for pre- and post-marketing of pediatric medical devices
Conclusion

- Japanese regulatory carried out some enforcement of policies to support the development of pediatric medical devices.
- On the issue of funds, Japanese regulatory remits the 90% of fee for review and inspection.
- HBD-for-children activity contributes to the development of pediatric medical devices by supporting the Japan-US global clinical trial.
- Research project related in the activity has started.

We will continue to seek a possibility of global clinical trials of pediatric medical devices and utilization of real-world evidence for an early approval of pediatric medical devices in the Japan and U.S..

Please join the HBD-for-children activities for the happiness of children!
Thanks for your kind listening!

Please contact me or HBD secretariat, if you have any questions.

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Let's continue to think about highly feasible measures together by sharing information through industry-regulatory-academia and conducting frank discussions.