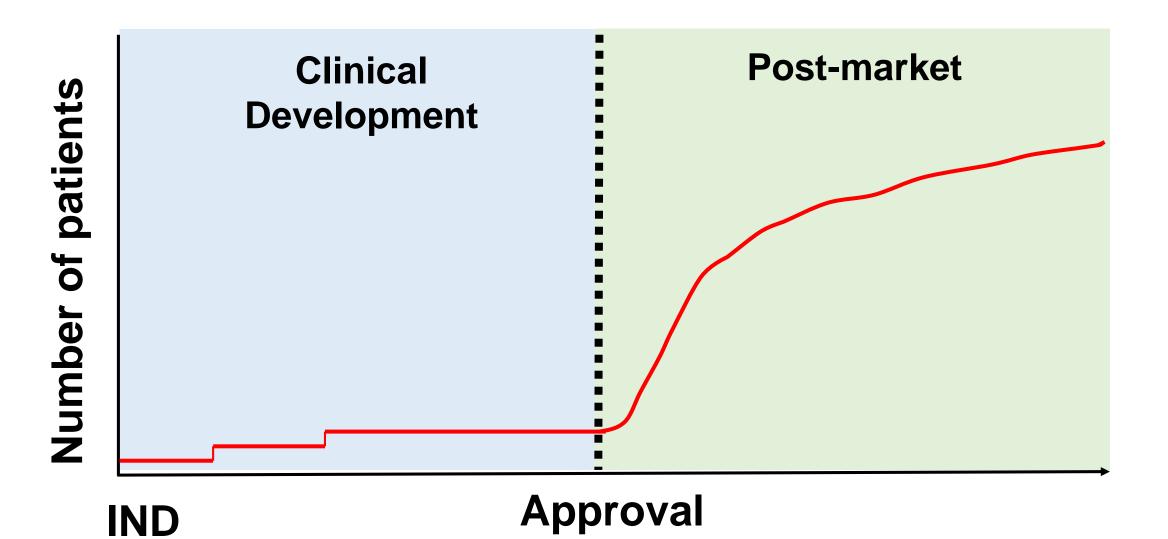
Post marketing safety requirements (Japan)

-Re-examination system of Regenerative Medicinal Products-

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Limitations of Clinical Trials



Re-examination system

Objective:

- To collect post-marketing information for a predetermined period
- To reconfirm the quality, efficacy and safety of products after approval by regulatory bodies (MHLW/PMDA)

Period	Type of new product	
10 years	Orphan products	
8 years	Products with new constitutive cells /new transgenes	
6 years	Products with new structure Products with new route of administration	
4 years	Products with new indication/new dosage/methods of usage	

Re-examination results

Regulatory bodies (PMDA/MHLW) judge whether the marketing authorization should be maintained, varied, suspended or withdrawn according to the following three categories:

Category	Result	Decision on marketing authorization
Category 1	Quality, efficacy and safety of drug is conformed	Maintain
Category 2	Quality, efficacy and safety of drug is conformed by a partial change in approval	Vary
Category 3	Quality, efficacy and safety of drug is not confirmed	Withdraw

Post-Marketing Study

Post marketing observational study with primary data collection (Use-results survey)

 Information in routine clinical practice is obtained directly from medical institutions.

Post-marketing Database study

• Information is acquired from the medical information database.

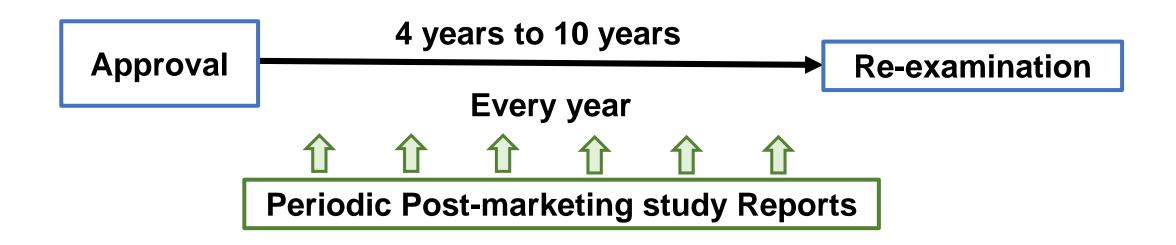
Post-marketing clinical trial

• Trials conducted according to approved indications and usage to collect information not available in routine clinical practice.

Post-Marketing Study covering all patients

- Currently, all approved regenerative medical products are required to perform Post-Marketing Study covering all patients treated with the product in the postmarketing setting.
- The objective of this system are:
 - ✓ To collect post-marketing information promptly and without bias.
 - \checkmark To collect information necessary for proper use promptly .
- All patients who use the product are needed to be registered by HCPs before the start of the use of the product.

Process From Approval to Re-examination



Contents of Periodic Post-marketing study Reports and Reexamination documentation:

- Results of Post-marketing studies
- Reports of AR and infection during the period...etc.

Re-examination : JACE

Approved on 2007 Re-examined on 2017 Autologous Culture Epidermis Post-marketing study JACE covering all patients <Safety> Number of patients (%) < Indication > N=359 serious burns treatment All AEs after product 181 (50.4%) (limited to the burns of transplantation more than 30% of the AEs (casual relationship to body surface area) 25 (7.0%) product could not be ruled out) <Efficacy> **Epithelialization rate at 4 week** Clinical trial : J-TEC003 (2 patients) Total 51.0±37.00% N=334 **Epithelialization rate at 4 week** Pediatric Age ≤ 10 58.7±33.30% N=20 Age 34 Patient #1 50% Geriatric Age ≥ 65 44.4±39.13% N=111 Patient #2 100% Age 35

Summary

- Because only a limited number of patients participated in the clinical studies of the new product, MAH is required to conduct postmarketing study in order to collect safety and efficacy data in the post-market setting, and thereby to apply for re-examination.
- 4 years to 10 years after approval, Regulatory bodies (PMDA/MHLW) reconfirm the quality, efficacy and safety of products in reexamination.
- All regenerative medical products are required to perform Post-Marketing Study covering all patients treated with the product in the post-marketing setting in order to collect post-marketing information promptly and without bias, etc.