Update of Drug Pricing System in Japan

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Outline of Today’s presentation

1. Drug Pricing System in Japan
2. Reform of Drug Price System
1. Drug Pricing System in Japan
Medical treatment fee is classified into medical, dental and dispensing fee.

Specifically, medical fee is calculated by adding the scores given to individual medical actions that were provided, converting 1 point to 10 yen, in principle (so called, “fee-for-service system”).

For example, when a patient is hospitalized for appendicitis, the first visit fee, hospital fee according to the number of days of hospitalization, surgery fee for appendicitis, test fee, drug fee, etc. are added. The insurance medical institution will receive the total amount less the co-payment charged to the patient from the examination and payment organization.
National Health Insurance Drug Price Standard

Item list

- A doctor or pharmacist operating under the health insurance program, in principle, must not use drugs other than “Drugs the Minister of Health, Labour and Welfare specifies”.
- Items listed in the NHI Drug Price Standard are stipulated as “Drugs the Minister of Health, Labour and Welfare specifies”.

= NHI Drug Price Standard specifies drugs usable in insurance-covered healthcare, and functions as an item list.

Price table

- When an authorized medical institution or pharmacy operating under the health insurance program makes insurance claims, the drug charge shall be calculated based on the price specified in the NHI Drug Price Standard.

= NHI Drug Price Standard specifies the claimable amount of drugs used in insurance-covered healthcare, and functions as a price table.
Outline of current drug price standard system

1. The Drug Price Standard specifies the price of drugs when paid from medical insurance to authorized medical institutions or pharmacies operating under the health insurance program (insurance medical institutions).


3. Prices specified by the Drug Price Standard is periodically revised based on the results of a survey (drug price survey) on the actual selling price (market price) to medical institutions and pharmacies.
The new drug price is the weighted average of the wholesaler’s selling price to medical institutions and pharmacies (market price excluding tax), with consumption tax added as well as the span of the adjustable range (2% of drug price before the revision) for stabilizing drug distribution.

\[
\text{New drug price} = \left( \text{Weighted average of selling price to medical institutions and pharmacies (market price excluding tax)} \right) \times \left( 1 + \text{consumption tax rate (incl. local consumption tax)} \right) + \text{Span of adjustable range}
\]
Revision of price of listed drugs

The actual purchase prices paid by medical institutions and pharmacies (prevailing market price) are surveyed (drug price survey) and the prices specified in the drug price standard are revised periodically based on the results of the survey.
“Re-pricing following market expansion” for the drugs with huge annual sales

【Now（Previous）】
Price will be reduced when annual sales of a drug exceed its estimated figure to some extent.

【Revised】
The drugs with huge annual sales will be treated as an exception of the current rule.

Ex) New drugs calculated using cost accounting system

- Price revision when 10 years or more have passed since the drug was listed

- Re-pricing following market expansion

<table>
<thead>
<tr>
<th>Annual sales (100 million yen)</th>
<th>Estimated annual sales</th>
<th>Annual sales below 150 billion yen</th>
<th>Above 150% of the estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>30</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>2nd year</td>
<td>25</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>3rd year</td>
<td>40</td>
<td>65</td>
<td>100</td>
</tr>
<tr>
<td>4th year</td>
<td>60</td>
<td>100</td>
<td>140</td>
</tr>
<tr>
<td>5th year</td>
<td>70</td>
<td>120</td>
<td>160</td>
</tr>
</tbody>
</table>

- Up to 25% price down
- Up to 50% price down

- Above 200% of the estimates and above 15 billion yen
- Above 1000% of the estimates and above 10 billion yen

- Annual sales
  - 100～150 billion yen
  - Above 150% of the estimates
- Annual sales above 150 billion yen
  - Above 130% of the estimates
New drug price determination method

New drug

Comparable drug exists

Price determination by comparable drugs (I)

The daily drug price of the new drug is matched to the daily drug price of existing most comparable drugs.

Corrective premium

Innovativeness premium
Usefulness premium
Marketability premium
Child premium
Sakigake review designation scheme premium

No comparable drug exists

Price determination by comparable drugs (II)

The insurance drug price for new drugs with low innovativeness is to be the set at the lowest level compared to the prices of the comparators over the past few years.

Corrective premium

Innovativeness premium
Usefulness premium
Marketability premium
Child premium
Sakigake review designation scheme premium

Cost accounting system

Manufacturing (importing) cost
General, administrative and selling costs
Operating profit
Distribution cost
Consumption tax

New drug lacking in novelty

Adjustment to average overseas price※

※Only those to be priced with the cost accounting method or the comparator pricing method for which no drugs with similar pharmacological action exist.
Price determination by comparable drugs

• When there are comparable drugs with similar efficacy, the daily drug price of the new drug is matched to the daily drug price of existing comparable drugs from the viewpoint of ensuring fair competition in the market. [Price determination by comparable drugs (I)]

  – A comparable drug shall be, in principle, a new drug within 10 years after NHI price listing and the drug price of generic drugs is not listed.

  [Comparable drugs refer to those similar in the following aspects.]
  A Efficacy and effect
  B Pharmacological action
  C Composition and chemical structure
  D Dosage form, division and use

• For the relevant new drug, when higher efficacy is identifiable compared to comparable drugs, a corrective premium is applied to the above amount. [Innovativeness premium, usefulness premium, marketability premium, child premium, and sakigake review designation scheme premium]

<table>
<thead>
<tr>
<th>Premium</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovativeness premium</td>
<td>70-120%</td>
<td>New action mechanism, high efficacy/safety, improvement of disease treatment method</td>
</tr>
<tr>
<td>Usefulness premium</td>
<td>5-60%</td>
<td>High efficacy/safety, improvement of disease treatment method</td>
</tr>
<tr>
<td>Marketability premium</td>
<td>5%, 10-20%</td>
<td>Orphan drug, etc.</td>
</tr>
<tr>
<td>Child premium</td>
<td>5-20%</td>
<td>Dosage and usage expressly includes those pertaining to children, etc.</td>
</tr>
<tr>
<td>sakigake review designation scheme premium</td>
<td>10-20%</td>
<td>Pharmaceutical approval was obtained in Japan ahead of other countries, etc.</td>
</tr>
</tbody>
</table>
Usefulness premium

* Usefulness premium for the case where high usefulness, etc., is identified compared to comparable drugs

<table>
<thead>
<tr>
<th>Innovativeness premium</th>
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(1) New action mechanism that is clinically useful
(2) High efficacy/safety compared to comparable drugs
(3) Improvement of disease treatment method
(4) High medical usefulness achieved by preparatory contrivance

Usefulness premium

[70-120%]
Satisfies all of (1)-(3)

Usefulness premium (I)

[35-60%]
Satisfies 2 of (1)-(3)

Usefulness premium (II)

[5-30%]
Satisfies any of (1)-(4)

Sakigake review designation scheme premium

[10-20%] +

Marketability premium (I)

[10-20%] +

Orphan drug

Marketability premium (II)

[5%] +

Child premium

[5-20%] +

Efficacy group with small market

Subject of “sakigake review designation scheme”

Dosage and usage expressly includes those pertaining to children, etc.
Cost accounting system

Add up material cost, manufacturing expenses, etc., if there is no comparable drug

Calculated drug price

- Manufacturing (importing) cost
  - Material cost
  - Personnel expenses
  - Manufacturing expenses
- Sales cost, research cost, etc.
- Operating profit
- Distribution cost
- Consumption tax

In principle, in case of exceeding the average coefficient for the pharmaceutical industry, calculation is performed using a coefficient.

Operating profit varies drastically in the range from $-50\%$ to $0\%$, depending on the level of novelty, efficacy, or safety compared to the existing therapy.

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Adjustment to average overseas price

• For either price determination by comparable drugs (I) or cost accounting system, an adjustment is made if the deviation from the overseas price is large. [Adjustment to average overseas price]

1. Average overseas price (AOP): Average of prices in the US, UK, Germany and France
   (Make adjustment if there is a large discrepancy among overseas prices)

2. Adjustment requirement: (1) When above 125% of AOP → Downward adjustment
   (2) When below 75% of AOP → Upward adjustment

(1) When above 125%
\[
\left( \frac{1}{3} \times \frac{\text{Calculated value}}{\text{AOP}} + \frac{5}{6} \right) \times \text{AOP}
\]

(2) When below 75%
\[
\left( \frac{1}{3} \times \frac{\text{Calculated value}}{\text{AOP}} + \frac{1}{2} \right) \times \text{AOP}
\]

The upper limit is 200% of the calculated value.

To solve the problem about unapproved and off-label drugs, the items whose development were requested to the private or public sectors, and satisfy all the requirements below, should be excluded from the adjustment.

① The latest date a drug was approved in any of the 4 countries is more than 10 years before the approval date in Japan.
② AOP is less than one third of the calculated value.

Exception: The development costs the manufactures and retailers shouldered are not considered to exceed certain level.
The drug price of the follow-on biologics (biosimilars)

- Case of follow-on products of biotechnology
  - **0.7 multiplication** of the drug price of the original product
    ※If the medicine is more than 10 items, 0.6 multiplied
    ※Depending on the degree of clinical trial, up to 10% addition is allowed

- Case of chemically synthesized products
  - **0.5 multiplication** of the drug price of the original product
    ※If the medicine is more than 10 items, 0.4 multiplied

[Diagram showing the price calculation process]
New drugs price determination process

1. **Pharmaceutical approval**
   - NHI price listing application
   - **1st Drug Pricing Organization**
     - Notification of pricing plan

   - **No complaint**: Report and approval of pricing plan at general meeting of CSIMC*
     - NHI price listing (4 times per year)

   - **Complaint**: Submission of appeal document
     - **2nd Drug Pricing Organization**
       - Notification of investigation result

* Central Social Insurance Medical Council

In principle, within 60 days, within 90 days at latest

Opinion of NHI price listing applicant who desires to express opinions
Organizations of Central Social Insurance Medical Council involved in drug pricing

**General meeting**  
*(started in 1950)*

- Report

**Special Committee on Drug Prices** *(formed in 1990)*
- Investigates and deliberates specialized matters related to the reform of drug pricing system
- Prepares drug price standard and report to the general meeting biennially

**Drug Pricing Organization** *(formed in 2000)*
- Consists of experts of medicine, dentistry, pharmaceutical sciences and medical economics
- Examines the following for individual products in accordance with drug pricing rule and report to general meeting
  - Pricing of new drugs (listed 4 times a year)
  - Examination of premium rate for re-pricing following market expansion, etc. (every 2 years)
  - Others (examination of drug classification, etc.) (as needed)
- Summarizes opinions for reform of drug price system and report to Special Committee on Drug Prices (every 2 years)
2. The reform of drug price system
Achievement of both "Sustainability of the universal healthcare system" and "Promotion of innovation" to realize "Reduction of public financial burden" and "Improvement in the quality of medical care"

Response to a market expansion after drug price listing

- In order to promptly respond to a market expansion beyond a certain extent associated with an additional indication, etc., utilize the new drug listing opportunity (four times a year) to review the drug price.

Drug price survey and drug price revision in the in-between year

- In addition to a drug price revision every two years, also conduct a drug price survey in the in-between year for all products, and based on the survey results, conduct a drug price revision for products with large price discrepancies.

Evaluations of innovation (Review of the premium for new drug development and elimination of off-label drug use and introduction of cost-effectiveness evaluations)

- In order to promote the discovery of innovative new drugs, fundamentally review, on a zero basis, the premium for new drug development and elimination of off-label drug use.
- Along with this, introduce full-scale cost-effectiveness evaluations, including a price increases for drugs with high cost-effectiveness. (Also consider the modality of implementation, including organization and system.)

Future efforts in line with reform

- Thorough implementation of accuracy and transparency of the drug price calculation method
- Improvement of the foreign price adjustment method
- Expeditious understanding of stakeholders' actual business situation and necessary action
- Prompt provision of new health technologies
- Transformation from a model depending on long-listed products to an industrial structure with stronger drug discovery capabilities
- Expansion of strategies/measures to support the R&D of innovative biopharmaceuticals and biosimilars
- Promotion of support for venture companies and market competition of generic manufacturers
- Improvement of distribution efficiency, promotion of distribution improvements, and appropriate responses to the profit structure associated with the market environment
- Promotion of unit price-based by-product contracts and promotion of early price settlements
Based on the "Basic Policy for Fundamental Reform of the Drug Pricing System" (December 20, 2016), the Special Committee on Drug Prices initiated specific discussions in January 2017 and held 17 meetings throughout the year until December. Meetings to hear the opinions of the related industries were held three times.

<table>
<thead>
<tr>
<th>Date</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 11</td>
<td>Responses to market expansions associated with additional indications, etc.</td>
</tr>
<tr>
<td>Jan. 25</td>
<td>Modality of foreign price adjustment</td>
</tr>
<tr>
<td>Feb. 8</td>
<td>Drug price surveys</td>
</tr>
<tr>
<td>Feb. 22</td>
<td>Accuracy and transparency of the drug price calculation method (comparator price method)</td>
</tr>
<tr>
<td>Mar. 15</td>
<td>Drug price survey and drug price revision in the in-between year</td>
</tr>
<tr>
<td>Mar. 29</td>
<td>Drug price survey</td>
</tr>
<tr>
<td>Apr. 12</td>
<td>Accuracy and transparency of the drug price calculation method (cost calculation method)</td>
</tr>
<tr>
<td>Apr. 26</td>
<td>Modality of the drug prices of generics</td>
</tr>
<tr>
<td>May 17</td>
<td>Opinion-hearing from the related associations</td>
</tr>
<tr>
<td>May 31</td>
<td>Modality of the drug prices of long-listed drugs</td>
</tr>
<tr>
<td>Jun. 14</td>
<td>Modality of the premium for new drug development and elimination of off-label drug use</td>
</tr>
<tr>
<td>Jun. 28</td>
<td>Evaluations of innovation</td>
</tr>
<tr>
<td>Jul. 26</td>
<td>Summary of discussions up to now (1)</td>
</tr>
<tr>
<td>Aug. 9</td>
<td>Summary of discussions up to now (2)</td>
</tr>
<tr>
<td>Sept. 13</td>
<td>Opinion-hearing from the related associations</td>
</tr>
<tr>
<td>Oct. 27</td>
<td>Other matters</td>
</tr>
<tr>
<td>Nov. 22</td>
<td>Fundamental reform of the drug pricing system (Draft)</td>
</tr>
<tr>
<td>Nov. 29</td>
<td>Opinion-hearing from the related associations</td>
</tr>
<tr>
<td>Dec. 13</td>
<td>Fundamental reform of the drug pricing system (Draft) (Part 2)</td>
</tr>
<tr>
<td>Dec. 20</td>
<td>Outline for the Fundamental Reform of the Drug Pricing System (Approved at the Chuikyo)</td>
</tr>
</tbody>
</table>
Fundamental Reform of the Drug Pricing System

Based on the "Basic Policy for Fundamental Reform of the Drug Pricing System" (December 20, 2016), achieve both "Sustainability of the universal healthcare system" and "Promotion of innovation" to realize "Reduction of public financial burden" and "Improvement in the quality of medical care."

New drugs

Fundamental review of the premium for new drug development and elimination of off-label drug use
- **Target products:** To be narrowed down based on the innovativeness and usefulness
- **Corporate index:** Premium in accordance with the level of achievement of the corporate index (development of innovative new drugs, etc.)

Prompt response to the market expansion due to additional indications, etc.
- **Target:** 35 billion yen or higher*
- **Frequency:** 4 times a year (at the time of new drug listings)
  *A reduction of the drug prices according to the re-pricing rule following market expansion

Review of foreign price adjustments
- **US reference price list**
  Manufacturer’s suggested retail price
  → **Price list in the publish health insurance system**

Review of the evaluation of new drug innovation
- **Scope of premium (new drugs with no comparators)**
  Premium for the operating profit → **Premium for the entire drug price**
  (Setting the premium rate based on the degree of disclosure of the manufacturing cost breakdown)

Introduction of cost-effectiveness evaluations
- **Trial introduction**
  Price adjustments will be conducted for 13 target products in April 2018.
  - **Full-fledged introduction**
    Technical problems will be summarized and a conclusion will be reached by the end of FY2018.

Long-listed drugs and generics

Review of the prices of long-listed drugs
- **Target:** Long-listed drugs for which 10 years have passed since a generic was launched
- **Review method:** Step-by-step reduction based on the generic price

Consolidation of the generic price
- **Target:** Generics for which 12 years have passed since they were launched
- **No. of price ranges:** In principle, 1 price range
Handling of market expansion following addition of indications etc.

Direction of reform

- Drugs with additional indications etc. of which the market has expanded over and above a certain level shall be revised in price taking maximum advantage of the (four times a year) new drug listings.

Scope of drugs for data extraction

- In order to capture products with market expansion over and above a certain level, the market size of the following products shall be identified through the National Database (NBD).

<table>
<thead>
<tr>
<th>Drugs for data extraction</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Drugs with additional indications etc.</td>
<td>To identify those of which the market has expanded substantially due to the addition of indications etc.</td>
</tr>
<tr>
<td>(2) Products for which on listing the sales in the second fiscal year were projected to be at least 10 billion yen<em>1 or 15 billion yen</em>2</td>
<td>To identify those of which the market has expanded substantially since marketing over the initial projection</td>
</tr>
</tbody>
</table>

*1 Cost calculation method, *2 Comparator pricing method

Market size over a two-year period to be identified for (1) and (2) respectively

Drugs subject to repricing

- Those of the above drugs that correspond to the conditions for the current repricing for market expansion rule (including special cases) shall be repriced in accordance with the current method. However, since quarterly repricings will impose a tremendous burden on medical institutions, pharmacies and pharmaceutical companies, as the certain level of market expansion, drugs with annual sales in excess of 35 billion yen shall be targeted.

- In addition, the (four times a year) new drug listings shall also be used for repricing for dosage and administration changes.
Annual drug price surveys and revisions

Direction of reform

Scope of application of drug price survey
- To control the national burden through the timely reflection of market prices in NHI prices, all-product drug price surveys shall be conducted in the off-year of the biennial drug price revision (the ‘drug price revision off-year’) based on extraction of survey subjects from all drug wholesalers including major companies. Prices shall be revised on the basis of the results.

Scope of applicable products
- From the perspective of reducing the national burden while continuing to establish the infrastructure for the proper conduct of drug price surveys, it is valid to set the scope of applicable products as widely as possible. To this end, ahead of FY2021* the government shall take initiatives to improve drug distribution through proactively promoting single-product, single-price contracts, early price settlements and the correction of negative primary margins on sales so as to maintain stable drug distribution.

* Since a consumption tax hike is scheduled for FY 2019, which shall involve the price revision of all products, the initial drug price revision off-year shall be FY 2021.

- Prices shall be revised for all products for three consecutive years from FY 2018 to FY 2020. Therefore, the specific scope of applicable products shall be set during 2020 taking comprehensive account of identified market price trends, the status of price gaps (‘yakkasa’) and the impact of these revisions on wholesalers, medical institutions and pharmacies during this period.

(Ref.) Scope of applicable products and impact on healthcare expenditure (estimates*)

- Products with a price discrepancy rate of 2 times or higher the average (approximately 3,100 products, approximately 20% of all products) ▲ 50 ~ 80 billion yen
- Products with a price discrepancy rate of 1.5 times or higher the average (approximately 5,000 products, approximately 30% of all products) ▲ 75 ~ 110 billion yen
- Products with a price discrepancy rate of 1.2 times or higher the average (approximately 6,600 products, approximately 40% of all products) ▲ 120 ~ 180 billion yen
- Products with a price discrepancy rate of over 1 times the average (approximately 8,100 products, approximately 50% of all products) ▲ 190 ~ 290 billion yen

* The estimates were calculated from the FY 2015 drug price survey data on the assumption that half to three-quarters of the price discrepancies that occurred during the previous two years would occur in the drug price revision off-year.
<Product requirements>

- In applying the premium to on-patent new drugs etc., eligible products shall be limited to the following that have genuine innovativeness/utility so as to identify properly and evaluate the innovation of genuinely useful drugs and promote R&D investment.

<table>
<thead>
<tr>
<th>Scope of application</th>
<th>Eligible products</th>
</tr>
</thead>
<tbody>
<tr>
<td>*New drugs with no generic launches</td>
<td>Orphan drugs</td>
</tr>
<tr>
<td>*In such cases, new drugs for which 15 years have passed since listing</td>
<td>Products publicly offered for development</td>
</tr>
<tr>
<td></td>
<td>Products awarded premiums</td>
</tr>
<tr>
<td></td>
<td>Innovation, Utility I or II</td>
</tr>
<tr>
<td></td>
<td>Operating profit adjustment</td>
</tr>
<tr>
<td></td>
<td>Verification of genuine clinical utility</td>
</tr>
<tr>
<td></td>
<td>Drugs with a novel mechanism of action etc. (only those with innovativeness/utility) etc.</td>
</tr>
</tbody>
</table>

- In addition, in view of the following issues, the product requirement for the price discrepancy rate to be the average or below shall be withdrawn:
  1. That it is not necessarily an indicator for the evaluation of innovativeness/utility
  2. That it leads to prices remaining at a high level through the setting of high invoice prices

* Details given on following page
Direction of reform

- Innovativeness/utility criteria such as the following shall be set out for drugs with a novel mechanism of action and such drugs shall be limited to those fulfilling any of these criteria.

<table>
<thead>
<tr>
<th>Proposed criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration of efficacy against diseases not adequately responsive to current therapies through the novel mechanism of action</td>
</tr>
<tr>
<td>Demonstration through comparative studies of supremacy over current therapies through the novel mechanism of action</td>
</tr>
<tr>
<td>No other drugs available with the indications acknowledged through the novel mechanism of action</td>
</tr>
</tbody>
</table>

- In addition to the above, the following products shall be eligible for the PMP since their level of innovativeness/utility is deemed to be equivalent to that of first-in-the-class products.
  - Those listed within three years of the listing of a drug with a novel mechanism of action (only up to the third-in-the-class) of which
  - The drug with a novel mechanism of action has been awarded a premium or correspond to the above criteria.
# Revision of price maintenance premium

## Direction of reform

- The specific categorization of the company indicators based on the total respective points shall be as follows.

- Further, given that the company indicators are to be newly introduced, in the FY 2018 revision it shall be ensured that inter-company differentials arising from the difference in the scope and premium coefficient of Categories I and III are limited. For subsequent revisions too, and with reference to the status of new drug development etc., there shall be ongoing examination of the validity of these indicators for evaluating the initiatives and performance of pharmaceutical companies in respect of the development of innovative new drugs and elimination of drug lags, and their revision or the reflection of the findings in the respective revisions shall be discussed.

### Company indicators

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
<th>Top 25%</th>
<th>Median 50%</th>
<th>Premium coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A - 1</td>
<td>Domestic studies (including global studies including Japan) (no. conducted) (Phase II ~ )</td>
<td>4 pts</td>
<td>2 pts</td>
<td>1.0</td>
</tr>
<tr>
<td>A - 2</td>
<td>New drug listing performance (no. of listed ingredients) (past 5 years)</td>
<td>4 pts</td>
<td>2 pts</td>
<td>0.9</td>
</tr>
<tr>
<td>B - 1</td>
<td>Products publicly offered for development (no. of starts) (past five years) (excluding B – 2)</td>
<td>2 pts per product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B - 2</td>
<td>Products publicly offered for development (no. of approvals) (past 5 years)</td>
<td>2 pts per product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>First-in-the-world new drug developments (no. of products) (past 5 years)</td>
<td>2 pts per product</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Where there are several companies in the top 25th percentile of company indicator points, companies with the respective points shall be handled as Category I, with the ceiling set at the number of companies within the respective points percentile that do not exceed 30% of the total number of PMP-eligible companies.*

### Categorization

<table>
<thead>
<tr>
<th>Category</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Top 25%*</td>
<td>Other than I and III</td>
<td>Minimum no. of points</td>
</tr>
<tr>
<td>Premium coefficient</td>
<td>1.0</td>
<td>0.9</td>
<td>0.8</td>
</tr>
</tbody>
</table>

### Handling of medical ventures

Companies fulfilling the following criteria shall be placed in Category II.

- Is an SME
  (A company with 300 or fewer employees or stated capital of 300 million yen or less)
- The share-holding or capital contribution of another corporation does not exceed 1/2 of the total no. of shares or total capital
- The share-holding or capital contribution of several corporations does not exceed 2/3 of the total no. of shares or total capital
- Has only one ingredient eligible for the PMP and has posted no current profits or did so but had no business income in the fiscal preceding the year of the respective product approval (only over the past five years)

The A – 1 figures are those as at the end of September 2017 and the values of other indicators are the figures up to that date.

In addition, the A – 1 figures are per ingredient and include additional indications. (Studies underway for several indications for one ingredient are counted as ‘1’.)

The no. of studies conducted for A – 1 include products such as HIV agents for which applications for approval based solely on the results of overseas studies are exceptionally permitted.

The number of products referred to in C is the number designated under the sakigake review designation scheme.

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*Provisional translation by PhRMA*
Revision of price maintenance premium scheme (overall image)

**Position of scheme**
- Institutionalization to be discussed following fundamental revision to establish an efficient and effective mechanism for the promotion of breakthrough new drug discovery.

**Product requirements**
- Decision based on intrinsic drug innovation and utility

  Limited to drugs awarded an innovation/utility premium and operating profit rate adjustment, orphan drugs, products publicly offered for development and drugs with a novel mechanism of action (only those deemed under the pricing rules to have innovation and utility) etc.

**Company indicators**
- Premium rate to be based on the achievement/fulfillment level of the following indicators:
  (To be assessed on each revision)
  (A) Innovative new drug discovery
  (B) Actions on drug lags
  (C) First-in-the-world new drug development

**Price listing**
- Generic launch or 15 years on from listing

* Ceiling premium amounts also set according to the discrepancy rate
To ensure that the innovation of innovative drugs is properly evaluated, with the cost calculation as well as the comparator pricing method, premiums shall be applied to the total price (the calculated price minus the premium).
Evaluation of innovation

**Direction of reform**

- To promote the transparency of drug pricing, premium rate differentials shall be set for the cost calculation method according to the percentage of manufacturing cost items disclosable by the Drug Pricing Organization (the disclosure level)*

\[
\text{Premium} = \text{total price} \times \text{premium rate} \times \text{premium coefficient}
\]

(price minus premium) (0 ~ 120%)  
(0.2 ~ 1)

<table>
<thead>
<tr>
<th>Disclosure level</th>
<th>80% ~</th>
<th>50~80%</th>
<th>&lt; 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium coefficient</td>
<td>1.0</td>
<td>0.6</td>
<td>0.2</td>
</tr>
</tbody>
</table>

* Disclosure level = (disclosable price components) / (manufacturing cost)

**Premium added to total price**

**High disclosure level**

- Premium premium
- Corrective premium
- Manufacturing cost
- High disclosure level
- R & D costs etc. (general, administrative and selling costs)
- Operating profit
- Distribution costs
- Consumption tax

**Low disclosure level**

- Premium added to total price
- Corrective premium
- Manufacturing cost
- R & D costs etc. (general, administrative and selling costs)
- Operating profit
- Distribution costs
- Consumption tax

* All prices pre-FPA adjustment
Outline of scheme

To promote a shift from an LLP-dependent industry structure to one with greater drug development capability, LLPs shall be positioned as follows and their prices revised at the respective timings.

1. The generic substitution timing shall be up to ten years after generic launch.
2. The timing of the reduction of LLP prices to the generic level shall be ten years on from generic launch.

Generic substitution timing: revision of the Z2 rule

The Z2 rule for generic substitution timing shall be maintained. However, in view of the government target for the achievement of an 80% volume-based generic share by September 2020, the criteria for the three substitution rate categories under this rule shall be revised as follows.

<table>
<thead>
<tr>
<th>Substitution criteria (current)</th>
<th>Reduction rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% ~ 70%</td>
<td>▲ 1.5%</td>
</tr>
<tr>
<td>30% ~ 50%</td>
<td>▲ 1.75%</td>
</tr>
<tr>
<td>&lt; 30%</td>
<td>▲ 2.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substitution criteria (revised)</th>
<th>Reduction rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>60% ~ 80%</td>
<td>▲ 1.5%</td>
</tr>
<tr>
<td>40% ~ 60%</td>
<td>▲ 1.75%</td>
</tr>
<tr>
<td>&lt; 40%</td>
<td>▲ 2.0%</td>
</tr>
</tbody>
</table>

Timing of reduction to generic price: introduction of new scheme

A new scheme for reducing the prices of LLPs shall be introduced based in principle on their categorization as follows:

1. Products with progressing generic substitution (80% or above) (G1)
2. Products with poor generic substitution (less than 80%) (G2)
Revision of prices of long-listed products etc. (overall image)

<table>
<thead>
<tr>
<th>Generic substitution rate</th>
<th>Reduction rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 40%</td>
<td>▲ 2.0%</td>
</tr>
<tr>
<td>40% ~ 60%</td>
<td>▲ 1.75%</td>
</tr>
<tr>
<td>60% ~ 80%</td>
<td>▲ 1.5%</td>
</tr>
</tbody>
</table>

LLPs corresponding to G1
- Assessed for withdrawal by the end of June following completion of Z2 period
- Are withdrawn by six years later when production increase is feasible

Complementary reductions of products with a low substitution rate and not subject to price reductions under the G1 and G2 rules, etc.

Generics of G1 (withdrawn) products to be integrated in two price bands

Other generics to be integrated in one price band

* Excluding G1 and G2 biodrugs

<table>
<thead>
<tr>
<th>Generic substitution rate</th>
<th>Reduction rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 40%</td>
<td>▲ 2.0%</td>
</tr>
<tr>
<td>40% ~ 60%</td>
<td>▲ 1.75%</td>
</tr>
<tr>
<td>60% ~ 80%</td>
<td>▲ 1.5%</td>
</tr>
</tbody>
</table>
<Reference price list>
- In the US the RED BOOK prices are currently referenced. However,
  1. Some have taken the view that, being a list of the manufacturers’ recommended prices (free prices), the RED BOOK is inappropriate for comparative use in drug pricing decisions in Japan, a country that has official prices.
  2. Whereas others have take the view that, being the world’s largest drug discovery country, it is not valid to exclude the US from the reference countries.

- In view of these points, the price lists ASP and NADAC* used for the US public healthcare schemes Medicare and Medicaid shall be referenced.

<Scope of applicable new drugs>
- Currently, FPA is applied both to drugs priced with the cost calculation and the comparator pricing methods. However, to assure fair market competition, FPA shall not be applied in the comparator pricing of new drugs but shall be applied to the following:
  1. New drugs to be priced with the cost calculation method
  2. New drugs to be priced with the comparator pricing method for which no drugs with similar pharmacological action exist

* ASP : Medicare Part B Drug Average Sales Price  
  NADAC : National Average Drug Acquisition Cost
# Re: NADAC and ASP

## Overview

<table>
<thead>
<tr>
<th>Overview</th>
<th>ASP</th>
<th>NADAC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Average sales price of in-house prescription drugs to medical centers</td>
<td>• Average cost for acquisition of in-house prescription drugs by dispensing pharmacies</td>
</tr>
<tr>
<td></td>
<td>• Reimbursement price for Medicare Part B coverage (hospital outpatient services etc.)</td>
<td>• Used as basis for Medicaid reimbursement prices</td>
</tr>
</tbody>
</table>

## Applicable drugs

- Drugs principally used as part of treatment administered by physicians in clinics that are not reimbursed on a flat-fee basis.
- Products included in the CMS outpatient prescription drug list or new products approved as outpatient prescription drugs by the CMS under the provisions of Section 1927 of the Social Security Act.

* Extract from data distributed to Expert Advisors of the Expert Committee on Drug Pricing on August 9 2017

## Comparison with RED BOOK

<table>
<thead>
<tr>
<th>No. of listed products *</th>
<th>ASP/NADAC (New reference price lists)</th>
<th>RED BOOK (Reference price list used to date)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19 products</td>
<td>55 products</td>
</tr>
</tbody>
</table>

| Price relative to RED BOOK (average) | 0.77 | — |

* New drugs listed in Japan April 2016 ~ August 2017 for which US RED BOOK prices were available at the time of listing (55 products in total)
Future Considerations

Supplementary comments attached to the report concerning the FY2018 medical fee revision (excerpt)

(Fundamental reform of the drug pricing system)

16 Based on the "Outline for the Fundamental Reform of the Drug Pricing System," continue discussing the necessary actions and measures upon verifying the impact of the fundamental reform of the drug pricing system on the stakeholders. In addition, continue to discuss how to handle basic drugs.

Outline for the Fundamental Reform of the Drug Pricing System Appendix (Approved at the Chuikyo on December 20, 2017) (excerpt)

II. Appropriate evaluations of innovation
   1. Fundamental review of the premium for new drug development and elimination of off-label drug use
      2) Corporate requirements and corporate index
         ○ Since the corporate index is to be introduced for the first time on this occasion, in the FY2018 revision, the disparity among companies due to the scope of Classifications I and III and differences in the premium will be limited, and after the FY2018 revision, pharmaceutical companies' efforts and the results of innovative drug development and drug lag elimination will continued to be examined in terms of whether they are appropriate as evaluation criteria while taking into consideration the actual situation surrounding new drug development, etc. in order to discuss the review of and reflection onto the next or later revision.

VI. Future considerations
   ○ For the next revision, examine the evaluations of innovation in terms of whether or not it is necessary to evaluate the innovativeness and usefulness due to additional indications, etc.
   ○ For the next revision, examine the ideal time period until the step-by-step price reduction of long-listed drugs based on (1) the replacement rate to generics, (2) status of generic launches, and (3) responses to stable supply, among other things, after the price reductions of long-listed drugs on this occasion.
   ○ Upon examining the impact of the fundamental reform of the drug pricing system this time, such as review of the premium for new drug development and elimination of off-label drug use and review of the drug price of long-listed drugs, on the development, manufacture, distribution of drugs, when deemed necessary, consider the necessary measures for the next revision.