To: Division of Pharmaceutical Affairs,
Prefectural Health Department (Bureau)

From: Pharmaceutical Evaluation Division, Medical Device
Evaluation Division and the Safety Division,
Pharmaceutical Safety and Environmental Health
Bureau, Ministry of Health, Labour and Welfare

Guidance on Drug-Agnostic Companion Diagnostics

We have recently received from the Pharmaceuticals and Medical Devices Agency a report on the topic mentioned above as shown in the corresponding attached document. Please inform the relevant industries under your jurisdiction to refer this report in their business operations.

* This English version of the Japanese Notification is provided for reference purposes only. In the event of any inconsistency between the Japanese original and the English translation, the former shall prevail.
PMDA Notification No. 0628013
June 28, 2022

To: Director of Pharmaceutical Evaluation Division,
Director of Medical Device Evaluation Division,
Director of the Safety Division,
Pharmaceutical Safety and Environmental Health Bureau
Ministry of Health, Labour and Welfare

Chief Executive
Pharmaceuticals and Medical Devices Agency

Guidance on Drug-Agnostic Companion Diagnostics

The handling of in vitro companion diagnostics and corresponding therapeutic products has been described in the “Notification on Handling of In Vitro Diagnostics and Medical Device Products aiming Drug-agnostic Companion Diagnostics” (Notification No. 0331-1 dated March 31, 2022, jointly issued by the Director of the Pharmaceutical Evaluation Division, the Director of Medical Device Evaluation Division and the Director of Safety Division, Pharmaceutical Safety and Environmental Health Bureau).” The Pharmaceuticals and Medical Devices Agency has recently developed a guidance regarding the evaluation for eligibility for “drug-agnostic companion diagnostics” and points to be considered when developing relevant in vitro diagnostics and drugs as well as Questions and Answers (Q&A) regarding this guidance, which are shown in Attachment 1 and Attachment 2, respectively.
Attachment 1

Guidance on Drug-Agnostic Companion Diagnostics

This guidance expounds "Notification on Handling of In Vitro Diagnostics and Medical Device Products aiming Drug-agnostic Companion Diagnostics" (Notification No. 0331-1 dated March 31, 2022, jointly issued by the Director of the Pharmaceutical Evaluation Division, the Director of Medical Device Evaluation Division and the Director of Safety Division, Pharmaceutical Safety and Environmental Health Bureau) (hereinafter referred to as the "jointly issued notification") and provides the basic concept of eligibility for "drug-agnostic companion diagnostics" (hereinafter referred to as the "drug-agnostic CDx"), points to be considered when submitting an application for partial change of a conventional companion diagnostics to drug-agnostic CDx, submitting an application for a follow-on product to drug-agnostic CDx, as well as submitting an application for new therapeutic products relevant to drug-agnostic CDx. The purpose of this document is to facilitate development and review of drug-agnostic CDx and relevant therapeutic products.

It should be noted that the following concepts are based on the scientific knowledge at present, and should be reviewed and revised as necessary in accordance with the change of circumstances, advances in science and technology, and accumulation of knowledge in the future.

1. Basic concept of drug-agnostic CDx

According to Article 1 of the jointly issued notification, when multiple companion diagnostics (hereinafter referred to as "CDx") products are approved for the same intended use (i.e. the target disease, biomarkers and specimen type) but for different corresponding therapeutic products, these CDx products could be designated as drug-agnostic CDx, if it is considered scientifically reasonable to use the test results of any of the CDx products interchangeably to be used as aid in identifying the eligible patients for treatment with the other relevant therapeutic products. The basic concept regarding the scientifically reasonable range of interchangeable use could be interpreted as follows, although it should be noted that the concepts in individual cases are determined on a case-by-case basis, taking into consideration the characteristics of the biomarker and assay principle to be analyzed, etc.

A high percentage of concordance to predicate CDx in the equivalence study evaluated
at the time of application for approval could be the basis for the validity of
interchangeable use noted in the requirement in Article 1 (3) of the jointly issued
notification. For CDx that detects multiple variants of a specific gene, it is assumed that
there may be cases in which variants to be detected are not completely the same
between products. In such cases, if the equivalence studies using specimens from the
typical patient population subject to the corresponding drug demonstrate a high
percentage of concordance between CDx products, and the differences between
products are recognized only in rare variants that are detected infrequently in the target
patients, these CDx products are considered to meet Article 1 (3) of the jointly issued
notification.

When multiple CDx products based on the different assay principles (i.e. immuno-
histochemical staining, in situ hybridization, genetic test using a next-generation
sequencer, etc.) are approved as CDx for corresponding therapeutic products with the
same indication, it could be assumed that equivalence studies indicate some
discrepancies of the test results due to the differences in the assay principles. In such
cases, these CDx products could be considered to meet the requirements of Article 1 (3)
of the jointly issued notification, if a physician with sufficient knowledge and experience
can appropriately identify the eligible patients for the treatment with relevant
therapeutic products based on the test guidance provided by the relevant academic
societies etc., with the understanding of the characteristics and limitations of the assay
principle of each CDx product.

2. Flow of eligibility evaluation for drug-agnostic CDx

The eligibility for drug-agnostic CDx is evaluated based on the following (i) and (ii),
which are included in the submitted dossier of each candidate CDx product at the time
of regulatory review. Peer-reviewed published papers, demonstrating concordance
between approved CDx products, could also be the basis as reference information. The
test guidance for CDx developed by the relevant academic societies and opinions from
medical experts could also be considered as reference information.

(i) Percentage of concordance in equivalence studies between approved CDx products
(ii) Percentage of concordance in equivalence studies between approved CDx and
laboratory validated tests established as a standard method (see Section 3.2. of
"Technical Guidance on Development of In Vitro Companion Diagnostics and
Corresponding Therapeutic Products" (Administrative Notice dated December 26,
3. Points to be considered when changing conventional CDx to drug-agnostic CDx

According to the jointly issued notification, when CDx is determined to eligible for drug-agnostic CDx, the MAHs of the designated in vitro diagnostics products or medical device products are requested to submit an application for partial change to modify the intended use to the contents which is not limited to identify eligible patients for treatment with a specific therapeutic product. When changing the intended use of conventional CDx to drug-agnostic CDx, the additional precaution statements in the package inserts etc. and risk management based on the assessment report on the eligibility for drug-agnostic CDx are required. Those changes of product design or revalidation of the performance of CDx products should be considered as necessary.

Revision of precautions in the package inserts etc. should be considered from the following perspectives, for example.

● If the test guidance for the target biomarker has been issued by relevant academic societies, health care professionals should follow it.

● It is necessary to caution health care professionals that specific characteristics of the diagnostic products should be fully considered when selecting an assay method and interpreting test results.

● For in vitro diagnostic products, it should be cautioned that the product should be used to identify the eligible patients for the treatment with each relevant therapeutic product, based on thorough knowledge and understanding of the clinical and analytical performance of the product indicated in the package inserts etc. For medical devices, it should be cautioned that the product should be used to identify the eligible patients for treatment with relevant therapeutic products, based on thorough knowledge and understanding of the clinical performance and equivalence study result of the product in the package inserts etc.

● The PMDA website should be referred to in order to confirm which drug-agnostic CDx product could be used as aid in identifying the eligible patients for treatment with relevant therapeutic products.

4. Development of follow-on drug-agnostic CDx products

For the application for follow-on drug-agnostic CDx products, it is acceptable to submit the results of an equivalence study result with one of the products approved as drug-agnostic CDx as a rationale for its clinical performance. In principle, a predicate product
with the same assay principle should be selected as reference for the equivalence study. It is possible to develop follow-on products with a novel assay principle as drug-agnostic CDx; however, the acceptance criteria for the percentage of concordance in the equivalence studies should be determined on a case-by-case basis according to the characteristics of the product to be developed and discussed with PMDA in advance.

5. Development of therapeutic products using drug-agnostic CDx to identify the eligible patients

According to the jointly issued notification, if it can be adequately explained that approved drug-agnostic CDx can be used as aid in identifying the eligible patients for treatment with a new therapeutic product, an application for partial change for drug-agnostic CDx is not required in association with the filing of the application of the new therapeutic product. Representative cases in which it is considered possible to use drug-agnostic CDx products as CDx for a new therapeutic product are as follows. In case (1), prior confirmation with PMDA is not required. In cases (2) and (3), it is recommended that the marketing authorization holder of the therapeutic product consults with the Office of New Drug and Office of In Vitro Diagnostics and/or Office of Medical Devices of PMDA in advance to discuss the strategy of the development and/or the application for approval of the drug.

(1) A product approved as drug-agnostic CDx is used as the clinical trial assay (hereinafter referred to as the "CTA") to identify the subjects to evaluate efficacy and safety of the therapeutic product in the pivotal clinical trial.

(2) An equivalence study has been conducted between the CTA used in the pivotal clinical trial and one of the products approved as drug-agnostic CDx, and the analytical equivalence has been demonstrated between them.

(3) No equivalence study has been conducted between the CTA used in the pivotal clinical trial and drug-agnostic CDx; however, the analytical equivalence between the CTA and drug-agnostic CDx could be explained based on the comparison of the analytical validation reports of the CTA with the published information on the analytical performance of approved drug-agnostic CDx
Q&A on the "Guidance on Drug-Agnostic Companion Diagnostics"

1. Flow of eligibility evaluation for drug-agnostic CDx

Q1: If it is considered scientifically reasonable to use interchangeably the test results of multiple in vitro diagnostic products approved as complementary diagnostics, is it possible to apply to the same procedures as drug-agnostic CDx for submitting an application for partial change of the intended use to that not to identify patients for the corresponding therapeutic product?

A1: Yes, it is possible.

2. Development of therapeutic products using drug-agnostic CDx to identify the eligible patients

Q2: We are planning to use drug-agnostic CDx as the CDx for a new therapeutic product. Which consultation category should we apply in cases of 5(2) and (3) of the "Guidance on Drug-Agnostic Companion Diagnostics"?

A2: In cases of 5(2) and (3) of the "Guidance on Drug-Agnostic Companion Diagnostics," it is acceptable to include the consultation items addressing the appropriateness of a development plan using drug-agnostic CDx in conjunction with other consultation items for a major clinical trial or clinical data package of the therapeutic product. The equivalence study plans of drug-agnostic CDx and CTA and related items are recommended to be consulted on using the category of “CDx development package consultation” of Office of In Vitro Diagnostics and/or the category of “clinical trial necessity consultation” of Office of Medical Device I, in cooperation with the marketing authorization holder of drug-agnostic CDx product, as necessary. The minutes of consultation should be attached to the application dossier for approval of a new therapeutic product.