

TDM in Japan

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Scope of the lecture:

The activities of the Japanese Society of the Therapeutic Drug Monitoring (JSTDM) will be introduced along with the current state of TDM and related studies in Japan.

Learning objectives:

To share information concerning

- 1) JSTDM activities
- 2) Current state of TDM in routine clinical practices in Japan
- 3) TDM under clinical investigation

Extended abstract:

In 1981, TDM was introduced into routine clinical practices in Japan. The Japanese Society of the Therapeutic Drug Monitoring (JSTDM) was established in 1984 (formally in 1987) to share the information concerning TDM and thereby to obtain more preferable clinical outcomes in each clinic or hospital. To achieve information sharing, an annual meeting has been held since 1984. Approximately 800-1000 participants attend, including medical workers, health-care professionals, and researchers from universities and companies. Scientific journals are issued four times per year. Based on the long-term accumulation of data, the JSTDM has published some TDM guidelines in cooperation with related societies, including ones on anti-infective drugs (2012), immunosuppressive drugs (2014), and cardiovascular drugs (2015). These guidelines will be continuously updated according to the latest information.

Although a variety of agents were measured in the 1990s, including anti-infective drugs, anti-epileptic drugs, and cardiovascular drugs, immunosuppressive drugs have recently become the main body of TDM work, reflecting an increase in organ transplantations. Some drugs are being investigated in terms of TDM targets, including an antitumor agent, 5-fluorouracil. One of current topics is the quality control of measurement. Besides, genomic and non-genomic biomarkers are being explored to optimize pharmacotherapy. Pharmacometric modeling and simulation are included if deemed necessary.