

## **History, current status and future of psychiatric therapeutic drug monitoring in China Guo**

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**Background:** The journey of Therapeutic Drug Monitoring (TDM) in Chinese psychiatry began in the 1990s, with significant advancements occurring approximately every decade. These strides encompassed the establishment of medical laboratories, enhancements in assay quality and throughput, and the expansion of clinical applications.

**Methods:** Since the inception of the Neuropsychiatry Group within the Therapeutic Drug Monitoring Division of the Chinese Pharmacological Society in 2018, TDM has witnessed remarkable progress. Over twenty mental health institutions across the nation have contributed to this growth through academic conferences and scientific research. TDM is now conducted for nearly all psychiatric drugs, with a few exceptions for those without therapeutic reference ranges. In some hospitals, the annual TDM testing volume has surpassed 200,000 samples. Additionally, a growing number of medical laboratories have joined international proficiency testing programs, ensuring the high quality of TDM testing.

**Results:** The integration of TDM into the psychiatric treatment pathway has been achieved through collaboration among doctors, pharmacists, medical laboratory scientists, and nurses. This integration has deepened the practice of individualized medication, revealing and addressing previously undetected issues in pharmacotherapy. The formal publication of the "Expert Consensus on Clinical Application of Psychiatric Therapeutic Drug Monitoring in China 2022 edition" further standardized clinical TDM application. Furthermore, the approval of an intelligent TDM result interpretation system for clinical use has significantly improved the efficiency of TDM result interpretation, enabling clinicians to conveniently implement individualized treatments.

**Conclusions:** Looking ahead, China's psychiatric TDM is poised for continued development towards standardization, normalization, and even greater integration into clinical practice. With advancements in technology and a deepening understanding of drug metabolism and psychopharmacology, TDM will play an increasingly critical role in optimizing patient outcomes and enhancing the safety and effectiveness of psychiatric treatments

**Key Words:** psychiatry, therapeutic drug monitoring, result interpretation, quality control