

Therapeutic Drug Monitoring in India : A SWOT analysis

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Abstract

Over the last three to four decades, Therapeutic Drug Monitoring (TDM) has shaped itself as therapeutic drug management (TDM), an integral component of precision medicine. The practice of TDM is not extensive in India, despite being one of the fastest growing economies in the world. It is currently limited to a few academic medical centers and teaching hospitals. Apart from the immunosuppressive drugs, several other therapeutic areas like anticancer, antifungals, antibiotics and antitubercular have demonstrated great potential to improve the patient outcomes in the Indian settings. Factors like higher prevalence of nutritional deficiencies, tropical diseases, widespread use of alternative medicines, unlike pharmacogenomics, and sparse population specific data available on therapeutic ranges of several drugs, makes in the population of this subcontinent unique regarding the relevance of TDM. Despite the impact of TDM in clinical science and its widespread application, TDM has failed to receive the attention it deserves in India. This review intends to bring out a strength-weakness-opportunity and threats (SWOT) analysis for TDM in India so that appropriate steps for fostering growth of TDM could be envisioned. The need of the hour is creation of a cooperative group including all the stake holders like TDM professionals, clinicians and the government and devising a National Action Plan to strengthen TDM. Nodal TDM centres should be established and pilot programs should be rolled out for identifying the thrust areas for TDM in the country, capacity building and creating awareness to integrate TDM into mainstream clinical medicine.

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