

Sharda Hospital establishes India's first Centre for Drug Quantification to strengthen MDR-TB care

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To improve patient compliance and reduce the risk of developing resistance



School of Medical Sciences & Research (SMSR) in collaboration with the School of Pharmacy, Sharda University, in Greater Noida, has established the Centre for Drug Quantification and Therapeutic Drug Monitoring (CDQ-TDM); a specialised laboratory and first in the country, to detect and simultaneously quantify plasma levels of key second-line anti-tuberculosis (TB) drugs viz. bedaquiline, linezolid, levofloxacin, clofazimine etc.

The aim is to provide advanced precision-based monitoring of anti-tuberculosis drugs used in the treatment of Multidrug-Resistant Tuberculosis (MDR-TB); to improve patient compliance and reduce the risk of developing resistance.

The Centre is equipped with highly specialised analytical instrument (UPLC), and with the development of a cost-effective and reliable method, optimised treatment for MDR-TB can be made accessible to diverse patient populations across India.

The Centre has been established with funding support from ICMR under a research project grant. Advanced LC-MS technology is often associated with high operational costs and difficult to use on a regular basis, the CDQ-TDM Centre uses an HPLC-based method that is accurate, reliable, and more affordable. Based on the advice of ICMR experts, SMSR have set up this laboratory with modern equipment, with the aim of developing it into a national referral centre for testing and monitoring anti-TB drug levels.

Therapeutic Drug Monitoring helps doctors ensure that patients receive the right dose of medicine, enough to be effective, but not so much that it causes harm. With the launch of the CDQ-TDM Centre, SMSR & Sharda Hospital are taking an important step towards improving MDR-TB treatment through more accurate, patient-focused care.