



ULTRA-HIGH PERFORMANCE SUPERCRITICAL FLUID CHROMATOGRAPHY–TANDEM MASS SPECTROMETRY (UHPSFC-MS/MS) IN STEROID ANALYSIS

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ABSTRACT

Liquid chromatography tandem mass spectrometry (LC-MS/MS) assays are considered the reference standard for serum steroid hormone analyses, while full urinary steroid profiles are only achievable by gas chromatography (GC–MS). Both LC-MS/MS and GC–MS have well documented strengths and limitations. Recently, commercial ultra-high performance supercritical fluid chromatography–tandem mass spectrometry (UHPSFC-MS/MS) systems have been developed. These systems combine the resolution of GC with the high-throughput capabilities of UHPLC and used for routine analysis of complex steroid panels including applications such as urinary, serum and salivary steroid profiling for diagnostics and monitoring. The major drawback of UHPSFC-MS/MS is the potential loss or dilution of sample due to the splitter

KEYWORDS: Ultra-high performance supercritical fluid chromatography–tandem mass spectrometry, Ultra-high performance liquid chromatography–tandem mass spectrometry, Gas chromatography–mass spectrometry etc

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