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[\[PDF \(281K\)\]](#) [\[References\]](#)**Rapid UHPLC Method for Simultaneous Determination of Vancomycin, Terbinafine, Spironolactone, Furosemide and Their Metabolites: Application to Human Plasma and Urine**[Irena BARANOWSKA^{1\)}](#), [Andrzej WILCZEK^{1\)}](#) and [Jacek BARANOWSKI^{2\)}](#)*1) Department of Analytical Chemistry, Chemical Faculty, Silesian University of Technology**2) Department of Clinical Physiology, University Hospital***(Received March 4, 2010)****(Accepted May 10, 2010)**

The ultra high performance liquid chromatography (UHPLC)-UV method for the simultaneous determination of furosemide, saluamine (furosemide metabolite), spironolactone, carnenone (spironolactone active metabolite), terbinafine, *N*-desmethylcarboxy terbinafine (terbinafine metabolite) and vancomycin in human plasma and urine is proposed. Good separation of the analytes was achieved with the gradient RP-UHPLC-UV with the mobile phase composed as acetonitrile and 0.1% formic acid. The determined substances were eluted from a Hypersil GOLD C₁₈e (50 mm × 2.1 mm, 1.7 μm particles) column in 3.3 min. Good linear relationships were observed for all of the analytes (R^2 higher than 0.994). The limit of detection (LOD) values varied from 0.01 to 0.07 μg ml⁻¹, with vancomycin as an exception (0.11 μg ml⁻¹). After protein precipitation and solid-phase extraction, samples of plasma and urine were analyzed. Thanks to the short analysis time and small quantities of urine or plasma needed, this method can be applied to routine clinical analysis.

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