Drug metabolites found in wastewater

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University of Buffalo chemists say they've identified metabolites of two antibiotics and a medial imaging agent at wastewater treatment plants.

The chemists said data from their landmark discovery will allow wastewater treatment plants to begin monitoring for those byproducts.

The researchers said their discovery also reinforces concerns about excreted pharmaceutical compounds from wastewater systems that might end up in water supplies, potentially resulting in adverse effects for humans and the environment.

The UB scientists identified the metabolites for sulfamethoxazole and trimethoprim, commonly prescribed antibiotics, and for a synthetic estrogen, a common ingredient in birth control pills and in hormone replacement therapy.

The chemists obtained the water samples from local wastewater treatment plants in the Western New York towns of Amherst, East Aurora, Lackawanna, Tonawanda and Holland -- representing suburban, urban and rural areas.

They sampled effluent before and after each water-treatment stage to examine relative efficiencies of each treatment process.

The research was presented Thursday in Orlando, Fla., during the annual Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy.