

Experts offer new approach to prioritizing research on the environmental impacts of pharmaceuticals

27 January 2016

Researchers have developed a new way to prioritize investigations on the environmental impacts of the estimated 1500 active pharmaceutical ingredients currently in use.

Little is known about the potential impact these drugs may have on the environment in terms of risks to aquatic and [soil organisms](#), avian and mammalian wildlife, and humans, and it is unrealistic to study all 1500 concurrently. When investigators applied their new [approach](#) to 146 active pharmaceuticals that are either used in the community or in hospital settings in the United Kingdom, they identified 16 compounds as a potential priority. These substances include compounds belonging to the antibiotic, antidepressant, anti-inflammatory, antidiabetic, antiobesity, and estrogen classes.

"Many approaches have been proposed in the past for prioritizing pharmaceuticals in the environment. This is the first time a holistic approach has been proposed that considers all the main environmental compartments and trophic levels," said Dr. Alistair Boxall, senior author of the *Environmental Toxicology & Chemistry* article. "Application of the approach should really allow us to identify which pharmaceuticals warrant further scrutiny."

More information: Jiahua Guo et al. Toxicological and ecotoxicological risk-based prioritization of pharmaceuticals in the natural environment, *Environmental Toxicology and Chemistry* (2016). [DOI: 10.1002/etc.3319](https://doi.org/10.1002/etc.3319)

Provided by Wiley

APA citation: Experts offer new approach to prioritizing research on the environmental impacts of pharmaceuticals (2016, January 27) retrieved 20 June 2019 from <https://phys.org/news/2016-01-experts-approach-prioritizing-environmental-impacts.html>

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