



# Stop AMR

## Global Media Monitor

22 August – 28 August

[www.stopamr.eu](http://www.stopamr.eu)

### Why we need to rename antimicrobial resistance

Why is Antimicrobial Resistance, which has the potential to be an even bigger threat than COVID-19, under the radar for most people? Few physicians and even fewer lay people have a full understanding of what antimicrobial resistance means, and the media continue to sideline the topic even when reporting on related health threats such as sepsis.

This puzzling matter is explored in the UK Wellcome Trust report “*Re-branding Resistance*”, which suggests that antimicrobial resistance has a framing issue. The term is long and abstract, lacks intuitive meaning and fails to express the extent of the threat. Amongst other problems is also the inconsistent use of terminology, with various alternative terms such as “Superbugs” and “AMR” used synonymously. The document thus calls for the creation of a new term developed by combining psychological research with marketing notions.

Eva Krockow, Assistant Professor at the University of Leicester and researcher on this matter views re-branding as essential to increasing international awareness and willingness to act. “*Only the strategic choice of a single term which is (i) short and easy to pronounce, (ii) makes intuitive sense and (iii) has unique meaning, is likely to bring about overdue change in the global discussion of antimicrobial resistance.*”

Source: [British Society for Antimicrobial Chemotherapy](#), 25 August 2020

### COVID-19, antibiotics and One Health: a UK environmental risk assessment

The use of antibiotics in people with COVID-19 could result in increased resistance to the drugs' benefits among the wider population, a new study suggests.

Patients hospitalised as a result of the virus are being given a combination of medications to prevent possible secondary bacterial infections. However, research by the University of Plymouth and Royal Cornwall Hospital Trust suggests their increased use during the pandemic could be placing an additional burden on wastewater treatment works.

Writing in the *Journal of Antimicrobial Chemotherapy*, scientists say this could lead to raised levels of antibiotics within the UK's rivers or coastal waters which may, in-turn result in an increase in AMR. This would be particularly acute in receiving waters from wastewater treatment works serving large hospitals, or emergency 'Nightingale' hospitals, where there is a concentration of COVID-19 patients. The findings are based on reports that up to 95% of COVID-19 inpatients are being prescribed antibiotics as part of their treatment, and concerns that such a large-scale drug administration could have wider environmental implications.

Neil Powell, Consultant Pharmacist at the Royal Cornwall Hospital, said: “*Common with other hospitalised patients in the UK, and other countries, the majority of our patients with COVID symptoms were prescribed antibiotics because it is very difficult to know whether a patient presenting with symptoms of COVID has an overlying bacterial infection or not.*”

Source: [University of Plymouth](#), 25 August 2020  
From: [Journal of Antimicrobial Chemotherapy](#), 12 August 2020

### Dead cells release a ‘necrosignal’ that activates antibiotic survival pathways in bacterial swarms

Some cells within a bacterial swarm will sacrifice themselves so that other cells in the swarm have a better chance of surviving an antibiotic onslaught, according to a new study. The discovery could be important for



efforts to address antibiotic resistance. As bacterial cells within a cluster or swarm die, they release chemical death cries, which scientists call 'necrosignaling'. These signals act as a kind of early warning system, allowing the surviving bacterial cells to prepare a type of resistance to antibiotics.

Rasika Harshey, professor of microbiology at the University of Texas at Austin, and her team observed almost a decade ago that when bacterial swarms moved into an area treated with antibiotics, about 25% of the cells in the swarm died. They wondered if this massive cell death was altruistic in helping the community survive. The results in the new paper show that this is true. As they died, the cells released a protein that would bind to the surface of the surviving bacterial cells. This acted as a signal, letting survivors in the bacterial swarm know to start pumping the antibiotic out of the cells using specialized molecular machines called efflux pumps.

By understanding one of the mechanisms by which these hard-to-kill swarms survive contact with antibiotics, scientists may be able to target that process with therapeutic drugs. "*Interfering with necrosignaling should enhance the efficacy of antibiotics and reduce the occurrence of drug-resistant strains,*" Harshey says.

Source: [Futurity](#), 21 August, 2020  
From: [Nature Communications](#), 19 August 2020

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### **Interventions in telemedicine stem antibiotic prescribing rates**

"*Telemedicine has the potential for even more inappropriate antibiotic prescribing than brick-and-mortar facilities because doctors aren't physically examining patients and may not have the tools to accurately diagnose bacterial infections*", said Dr. Hamdy, lead researcher on a new study in the *Journal of General Internal Medicine* on whether interventions for telemedicine doctors can reduce unnecessary antibiotic prescriptions.

Two groups were set up: one only received training on appropriate prescription practices, whilst the other also received feedback on their dashboard showing their prescribing statistics compared to the practice-wide

average. Both types of interventions significantly reduced inappropriate prescriptions, in some cases with rates falling from about 64% to 32%.

*"We hope [...] that all direct-to-consumer companies rise to the occasion to implement effective antibiotic stewardship interventions in their practice"* Dr. Hamdy said.

Source: [EurekAlert](#), 26 August 2020  
From: [Journal of General Internal Medicine](#), 26 August 2020

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### **Antimicrobial-resistant pathogens affecting animal health in the U.S.**

This report is a snapshot of the current situation in animal health in the United States. It covers bacteria causing animal infections and the antimicrobials used to treat those infections.

For instance, in aquatic animal health, antimicrobial resistance has been documented in bacterial pathogens that affect their population. Some antimicrobial drugs used in aquatic animal medicine are available through over the counter and online sales, many of which are prohibited. Their extra label use may be illegal, potentially compromising our ability to treat both aquatic animal and human infections. Taking these prohibited antimicrobials off the market may help reduce the development and spread of antimicrobial resistance.

The excerpt includes actionable information about what groups such as veterinarians, producers, breeders, and those seeking medical care for their animals can do to combat antimicrobial resistance.

Source: [American Veterinary Medical Association](#), 26 August 2020

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