

# Bausch + Lomb Announces Publication Of 10-Year Armor Study Results On Ocular Antibiotic Resistance In JAMA Ophthalmology

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## Surveillance Data Demonstrates Nationwide Prevalence of Antibiotic Resistant Bacteria Common in Eye Infections

BRIDGEWATER, N.J., April 14, 2020 /PRNewswire/ -- Bausch + Lomb, a leading global eye health business of Bausch Health Companies Inc. (NYSE/TSX: BHC), today announced that *JAMA Ophthalmology* has [published 10-year results](#)

of the ongoing, multicenter, prospective Antibiotic Resistance Monitoring in Ocular microorganisms (ARMOR) surveillance study evaluating profiles and trends in antibiotic resistance among common ocular bacterial pathogens across the United States.<sup>1</sup> ARMOR is the only ongoing surveillance study of its kind.

The analysis of the 10-year results, which evaluated data from bacterial isolates collected from 2009 to 2018, showed that in vitro antibiotic resistance is prevalent nationwide among ocular staphylococci. One in three *Staphylococcus aureus* and one in two coagulase-negative staphylococci (CoNS) were methicillin-resistant, and three in four methicillin-resistant staphylococci were multidrug-resistant (to  $\geq$  three classes of antibiotics).

"Antibiotic resistance, which can complicate the choice of antibiotic in clinical practice and, in some cases lead to treatment failure, is a growing concern that can make it difficult for eye care professionals to effectively treat their patients with eye infections," said Penny A. Asbell, M.D., lead ARMOR study author, professor and chair, the University of Tennessee Health Science Center, and director, Hamilton Eye Institute, Memphis, Tenn. "Many eye care professionals treat their patients empirically, so the data collected in this unique ARMOR study are vital in that they can help guide eye care professionals in selecting the most appropriate treatment option to meet the needs of their patients."

In total, ARMOR study participants from 88 sites across 41 states collected a total of 6,091 isolates of *S. aureus*, CoNS, *Streptococcus pneumoniae*, *Pseudomonas aeruginosa* and *Haemophilus influenzae*, all organisms frequently implicated in bacterial infections of the eye. Overall, 34.9 percent of *S. aureus* and 49.3 percent of CoNS were methicillin-resistant and more likely to be concurrently resistant to other antibiotic classes. As well, multidrug resistance was high among methicillin-resistant *S. aureus* (75.4 percent) and CoNS (73.7 percent). In vitro resistance among *S. pneumoniae* was highest for azithromycin (36.3 percent); while *P. aeruginosa* and *H. influenzae* demonstrated low resistance overall. Differences in antibiotic resistance were found among isolates by patient age in staphylococci, by geographic region (all but *H. influenzae*), and over time.

"In everything we do, our goal is to help eye care professionals address their patients' needs for improved ocular health, and that includes providing them with the latest scientific data to inform their treatment decisions," said Joe Gordon, U.S. president, Bausch + Lomb. "Our ongoing

support of the ARMOR research study has the potential to benefit millions of patients who develop common eye infections so they can be effectively treated with the most appropriate antibiotic."

### **About the ARMOR Study**

The nationwide ARMOR study is an ongoing, multicenter, prospective, laboratory-based surveillance study sponsored by Bausch + Lomb. Initiated in 2009, the study was designed to extend the three-year Ocular TRUST (Tracking Resistance in the United States Today) study in surveying antibacterial resistance among clinically relevant ocular isolates of *S. aureus*, CoNS, *S. pneumoniae*, *P. aeruginosa*, and *H. influenzae* provided by community hospitals, academic/university hospitals, specialty/ocular centers and reference laboratories in the United States. Bacterial isolates submitted as part of ARMOR are sent to an independent central laboratory for in vitro susceptibility testing against representative antibiotics from 10 different classes as appropriate based on species.

### **About Bausch + Lomb**

Bausch + Lomb, a leading global eye health business of Bausch Health Companies Inc., is solely focused on helping people see. Its core businesses include over-the-counter products, dietary supplements, eye care products, ophthalmic pharmaceuticals, contact lenses, lens care products, ophthalmic surgical devices and instruments. Bausch + Lomb develops, manufactures and markets one of the most comprehensive product portfolios in the industry, which is available in more than 100 countries. For more information, visit

[www.bausch.com](http://www.bausch.com)

### **About Bausch Health**

Bausch Health Companies Inc. (NYSE/TSX: BHC) is a global company whose mission is to improve people's lives with our health care products. We develop, manufacture and market a range of pharmaceutical, medical device and over-the-counter products, primarily in the therapeutic areas of eye health, gastroenterology and dermatology. We are delivering on our commitments as we build an innovative company dedicated to advancing global health. More information can be found at

[www.bauschhealth.com](http://www.bauschhealth.com)

### **Forward-looking Statements**

This news release may contain forward-looking statements, which may generally be identified by the use of the words "anticipates," "expects," "intends," "plans," "should," "could," "would," "may," "believes," "estimates," "potential," "target," or "continue" and variations or similar expressions. These statements are based upon the current expectations and beliefs of Bausch Health management and are subject to certain risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. These risks and uncertainties include, but are not limited to, risks and uncertainties discussed in Bausch Health's most recent annual or quarterly report and detailed from time to time in Bausch Health's other filings with the U.S. Securities and Exchange Commission and the Canadian Securities Administrators, which factors are incorporated herein by reference. Readers are cautioned not to place undue reliance on any of these forward-looking statements. These forward-looking statements speak only as of the date hereof. Bausch Health undertakes no obligation to update any of these forward-looking statements to reflect events or circumstances after the date of this news release or to reflect actual outcomes, unless required by law.

### **References:**

1. Asbell PA, Sanfilippo CM, Sahm DF, DeCory HH. Trends in antibiotic resistance among ocular microorganisms in the United States from 2009 to 2018. *JAMA Ophthalmol*. Published online April

**Investor Contact:**

**Media Contact:**

Arthur Shannon

Lainie Keller

[arthur.shannon@bauschhealth.com](mailto:arthur.shannon@bauschhealth.com)

[lainie.keller@bauschhealth.com](mailto:lainie.keller@bauschhealth.com)

(514) 856-855

(908) 927-1198

(877) 281-6642 (toll free)

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## Investor Inquiries

[ir@bauschhealth.com](mailto:ir@bauschhealth.com)

877-281-6642

514-856-3855 (Canada)

## Media inquiries

[Corporate.communications@bauschhealth.com](mailto:Corporate.communications@bauschhealth.com)

908-569-3692

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