•

. 2020 Nov 17;64(12):e01337-20.

doi: 10.1128/AAC.01337-20. Print 2020 Nov 17.

## Lysophosphatidylcholine Potentiates Antibacterial Activity of Polymyxin B

Jitender Yadav<sup>1</sup>, Sana Ismaeel<sup>1</sup>, Ayub Qadri<sup>2</sup>

Affiliations collapse

## **Affiliations**

- ¹Hybridoma Laboratory, National Institute of Immunology, New Delhi, India.
- 2Hybridoma Laboratory, National Institute of Immunology, New Delhi, India ayub@nii.ac.in.
- PMID: 32988824
- PMCID: PMC7674032
- DOI: <u>10.1128/AAC.01337-20</u>

Free PMC article

## **Abstract**

Polymyxin B, used to treat infections caused by antibiotic-resistant Gram-negative bacteria, produces nephrotoxicity at its current dosage. We show that a combination of nonbactericidal concentration of this drug and lysophosphatidylcholine (LPC) potently inhibits growth of *Salmonella* and at least two other Gram-negative bacteria *in vitro* This combination makes bacterial membrane porous and causes degradation of DnaK, the regulator of protein folding. Polymyxin B-LPC combination may be an effective and safer regimen against drug-resistant bacteria.