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Multidrug-Resistant Infections in U.S. Hospitals

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17 Jernigan et al. reported national estimates of multidrug-resistant bacterial infections in the
18 U.S.¹, but extended-spectrum- β -lactamase-producing *Enterobacterales* (ESBL-E) were
19 underestimated. Indeed, only *Klebsiella spp.* (excepted *Klebsiella aerogenes*) and
20 *Escherichia coli* isolates were included in the pathogen phenotype definition (see Table
21 S2 in the Supplementary Appendix of the article, available at NEJM.org).

22 From January 2008 to March 2020, we conducted a retrospective study in our center on
23 ESBL-E carriage using rectal swabs culture. A total of 128,374 samples from 42,587
24 patients were included. Each ESBL-E isolate was counted only once per patient. Out of
25 9,945 isolates from 8,099 patients, *Klebsiella spp.* (excepted *K. aerogenes*) and *E. coli*
26 represented 78.11% of all the ESBL-E isolates, *Enterobacter* (and *K. aerogenes*) 16.38%,
27 *Citrobacter* 3.96%, and other *Enterobacterales* 1.55%.

28 Because *Enterobacter spp.*, *K. aerogenes*, and *C. freundii* naturally produce an AmpC
29 cephalosporinase², ESBL production cannot be inferred only from the antimicrobial
30 susceptibility results. Additional phenotypic confirmatory tests are needed³, which
31 explains the underestimation in this study based on antimicrobial susceptibility data.

32 **Bibliography**

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