To the Editor: We read with great interest the Matsumura et al. paper describing extended-spectrum β-lactamase (ESBL) CTX-M-27–producing Escherichia coli of sequence type (ST) 131 clonal group, an emerging clade called C1-M27 (1). ST131 E. coli having blaCTX-M-27 has been described in several countries. We observed an alarming increase of this clonal group in the fecal carriage of children in France (0% in 2010 to 65% in 2015 among ESBL-producing ST131 E. coli) (2).

We wondered whether this clonal group’s expansion in France was attributable to the same clade (C1-M27). For that, we designed primers (M27PP1-B-F, 5′-TTACTCC-GACTATGCGTTCAC-3′; amplicon length, 1.5 kb) to amplify the insertion site of the structure comprising the direct repeat and prophage-like genomic island of E. coli PCN033, as previously described (3). PCR was performed on our recently described collection of 39 ESBL-producing ST131 E. coli, including 16 CTX-M-27–producing E. coli: 13 of subgroup O25b with fimH30 allele and 3 of O16 subgroup with fimH41 allele (2). Results showed that 81% (13/16) of the CTX-M-27–producing E. coli ST131 had the M27PP1 structure, similar to that of our own experience in a charitable hospital in Amman, Jordan (1). The findings mirror other reports (2, 3) and our own experience in a charitable hospital in Amman, Jordan, which manages war-injured refugees from Syria (1).

Antimicrobial Drug Resistance among Refugees from Syria, Jordan

Aula Abbara, Nizar Al-Harbat, Nabil Karah, Bashar Abo-Yahya, Wael El-Amin, James Hatcher, Omar Gabbar

To the Editor: The Kassem et al. article regarding high rates of multidrug-resistant (MDR) bacteria colonizing Syrian children highlights the challenge of choosing empiric antimicrobial drugs to treat war-injured refugees from Syria (1). The findings mirror other reports (2, 3) and our own experience in a charitable hospital in Amman, Jordan, which manages war-injured refugees from Syria. As part of a program of antimicrobial drug stewardship and infection prevention and control, empiric antimicrobial drug protocols were introduced. For antimicrobial
drug–naive patients, the first-line choice for prophylaxis and treatment of skin and soft-tissue infections, including those involving open fractures, was a narrow-spectrum cephalosporin, as recommended by the Infectious Diseases Society of America guidelines (4); however, clinical failure was common.

We retrospectively reviewed the clinical microbiology data of 75 patients admitted in January 2015 with a history of suspected post-trauma infection. All these patients were first treated in field hospitals in Syria; 82.7% were male, and 33% were <16 years old. Twenty-four percent had multiple injuries, 20% had osteomyelitis, and 53% had metal prosthetic implants.

Thirty bacterial isolates were identified, mostly from deep wound swabs of 21 (28%) injured patients; 9/21 were infected with 2 isolates. Twenty-nine (97%) isolates were gram-negative bacteria: 10 Proteus spp., 10 Escherichia coli, 5 Pseudomonas spp., and 4 Klebsiella spp. Disk diffusion susceptibility testing showed that 20 (66%) isolates were MDR and 11 (36.7%) were carbapenem resistant.

The hospital laboratory did not have the capacity to perform further testing and confirmation of the resistant strains in line with international quality standards because they lacked suitable equipment and financial resources. Preventing further dissemination of MDR organisms among war-injured refugees from Syria at hosting healthcare facilities requires an effective surveillance system, investment in infection prevention and control, appropriate antimicrobial drug stewardship, and urgent laboratory capacity building inside Syria and in the refugee-host countries.

References

Address for correspondence: Aula Abbbara, Department of Infectious Diseases, St. Mary’s Hospital, Praed St, London W2 1NY, UK; email: aula.abbbara@gmail.com