

Letter to the editor: Is there a need for special treatment of refugees at hospital admission?

J Walter¹, S Haller¹, J Hermes¹, M Arvand², M Abu Sin¹, T Eckmanns¹

1. Unit for Nosocomial Infections, Surveillance of Antimicrobial Resistance and Consumption, Department for Infectious Disease Epidemiology, Robert Koch Institute, Berlin, Germany
2. Unit for Applied Infection Control and Hospital Hygiene, Department for Infectious Disease, Robert Koch Institute, Berlin, Germany

Correspondence: Jan Walter (walterj@rki.de)

Citation style for this article:

Walter J, Haller S, Hermes J, Arvand M, Abu Sin M, Eckmanns T. Letter to the editor: Is there a need for special treatment of refugees at hospital admission?. *Euro Surveill.* 2016;21(7):pii=30137. DOI: <http://dx.doi.org/10.2807/1560-7917.ES.2016.21.7.30137>

Article submitted on 10 February 2016 / accepted on 18 February 2016 / published on 18 February 2016

To the editor: Two recent publications by Reinheimer et al. and Heudorf et al. in *Eurosurveillance*, provided data on multidrug-resistant bacteria obtained from screening of different refugee populations and concluded that additional screening or surveillance for refugees at hospital admission in Germany should be undertaken [1,2]. The high number of people currently migrating to Europe from disaster areas has sparked a debate, whether or not refugees should be screened at hospital admission for colonisation with multidrug-resistant bacteria to limit spread of antibiotic resistance within Europe. The possible negative consequences of screening and lacking data make this a more complex issue than it may seem at first.

The advantages of screening seem obvious. There is evidence that in some countries with a high emigration the prevalence of antimicrobial resistance in healthcare settings is high. In addition, international travel and migration are discussed as factors promoting the global spread of resistance [3]. One could also speculate that resistant pathogens may spread during the journey or within refugee camps, where hygiene is often poor and turnover of persons is high. However, evidence to base a decision for or against microbiological screening in refugees is largely lacking.

Little can be done in terms of decolonisation in case of multidrug-resistant Gram-negative bacteria (MDRGN), because they can colonise the human gut and become part of the intestinal flora. Therefore, good adherence to infection control precautions is essential to prevent the transmission of MDRGN in hospitals. In addition to standard precautions, isolation and barrier nursing are possible intervention strategies. However, these measures may be associated with poorer patient care [4] and higher cost. In the context of refugees it is also perceivable that targeted screening will result in stigmatisation.

Given the scarcity of available data in the scientific literature, the recently published articles by Reinheimer et al. and Heudorf et al. [1,2] are highly interesting. They show that in a sample of 143 adult refugees presenting at a German hospital as well as among 119 unaccompanied refugee minors, colonisation with extended spectrum beta-lactamase (ESBL)-producing bacteria is more frequent than in patients from general German population. Both articles suggest additional screening or surveillance for refugees at hospital admission in Germany. The Robert Koch Institute on the other hand does not recommend screening particularly for refugees in addition to what is recommended for everyone at hospital admission in Germany: if a patient had recent contact to the healthcare system of countries with high prevalence of antimicrobial resistance, screening for carbapenem-resistant bacteria and methicillin-resistant *Staphylococcus aureus* (MRSA) is recommended [5]. Reinheimer et al. calculated that according to current German guidelines [6], 32.9% of refugees in contrast to 10.9% of non-refugee patients would qualify for isolation in especially vulnerable settings, such as intensive care units (ICUs). This is misleading since not all of the patients in their sample had to be admitted to such settings.

While the high rate of colonisation with ESBL-producing bacteria among refugees is certainly worrisome and while current guidelines indeed recommend isolation in certain settings, such as in ICUs, screening for these pathogens is not recommended for any patient group in Germany [6]. In addition, colonisation with ESBL-producing bacteria may also be high in some German populations. For example a study among travellers returning to Germany showed colonisation with ESBL-producing *Escherichia coli* in 30% [3], which is similar to that seen among refugee minors [2]. Screening is, however, not recommended for travellers returning to Germany.

As described above screening for carbapenem-resistant bacteria is recommended for high risk groups [6]. Fortunately, carbapenem resistance was low in both studies, so that the need for targeted screening in this population under current German guidelines does not seem to be warranted. If, however, the proposal of an extension of current screening criteria was intended, Germans at high risk for colonisation with ESBL-producing bacteria needed to be included too. In the meantime strengthening standard hospital hygiene and providing translators for refugees to ensure good patient care and to identify those patients, who qualify for isolation and screening under current guidelines, may be more urgent.

Conflict of interest

None declared.

Authors' contributions

All authors were involved in drafting or editing the manuscript.

References

1. Reinheimer C, Kempf VAJ, Göttig S, Hogardt M, Wichelhaus TA, O'Rourke F, et al. Multidrug-resistant organisms detected in refugee patients admitted to a University Hospital, Germany June-December 2015. *Euro Surveill.* 2016;21(2):30110. DOI: 10.2807/1560-7917.ES.2016.21.2.30110 PMID: 26794850
2. Heudorf U, Krackhardt B, Karathana M, Kleinkauf N, Zinn C. Multidrug-resistant bacteria in unaccompanied refugee minors arriving in Frankfurt am Main, Germany, October to November 2015. *Euro Surveill.* 2016;21(2):30109. DOI: 10.2807/1560-7917.ES.2016.21.2.30109 PMID: 26838714
3. Lübbert C, Straube L, Stein C, Makarewicz O, Schubert S, Mössner J, et al. Colonization with extended-spectrum beta-lactamase-producing and carbapenemase-producing Enterobacteriaceae in international travelers returning to Germany. *Int J Med Microbiol.* 2015;305(1):148-56. DOI: 10.1016/j.ijmm.2014.12.001 PMID: 25547265
4. Fätkenheuer G, Hirschel B, Harbarth S. Screening and isolation to control methicillin-resistant *Staphylococcus aureus*: sense, nonsense, and evidence. *Lancet.* 2015;385(9973):1146-9. DOI: 10.1016/S0140-6736(14)60660-7 PMID: 25150745
5. Robert Koch Institute (RKI). Stellungnahme des Robert Koch-Instituts zur Frage des Screenings von Asylsuchenden auf Multiresistente Erreger (MRE). [Statement of the Robert Koch Institute regarding screening of asylum seekers for multidrug resistant bacteria.] Berlin: RKI; 28 January 2016. German. Available from: http://www.rki.de/DE/Content/Gesundheitsmonitoring/Gesundheitsberichterstattung/GesundAZ/Content/A/Asylsuchende/Inhalt/MRE-Screening_Asylsuchende.pdf?__blob=publicationFile
6. Robert Koch Institute (RKI). [Hygiene measures for infection or colonization with multidrug-resistant gram-negative bacilli. Commission recommendation for hospital hygiene and infection prevention (KRINKO) at the Robert Koch Institute (RKI)]. *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz.* 2012;55(10):1311-54. PMID: 23011096