

SURVEILLANCE OF HEMODIALYSIS RELATED INFECTIONS: A PROSPECTIVE MULTICENTER STUDY, FIRST REPORT FROM TURKEY

Imran Hasanoglu¹, Rahmet Güner¹, Hacı Veli Atalay², Suzan Şahin³, Ergün Parmaksız³, FATMA YILMAZ KARADAĞ⁴, Sabahat Alısır Ecdar⁵, Tugba Arslan Gülen⁶, Zuhale Atan Uçar⁶, Oğuz Karabay⁷, Savaş Sipahi⁷, Esra Kaya Kılıç⁸, Murat Duranay⁸, Derya Yapar⁹, İbrahim Doğan¹⁰, Gülden Ersöz¹¹, Gülcan Türkmən¹², and Ahmet Alper Kıyıkım¹³

¹Ankara Yıldırım Beyazıt University Faculty of Medicine

²Ankara Gülhane Eğitim ve Araştırma Hastanesi

³Istanbul Dr Lütfi Kırdar Kartal Eğitim ve Araştırma Hastanesi

⁴Affiliation not available

⁵Medeniyet University Goztepe Training and Research Hospital

⁶Niğde Ömer Halisdemir University

⁷Sakarya Üniversitesi Tıp Fakültesi

⁸Sağlık Bakanlığı Ankara Eğitim ve Araştırma Hastanesi

⁹Hitit University Faculty of Medicine, Turkey.

¹⁰Hitit University

¹¹Mersin Üniversitesi Tıp Fakültesi

¹²Mersin Üniversitesi

¹³Mersin University

November 12, 2020

Abstract

Background There is neither a surveillance system nor a study to reveal the HD related infection rates in Turkey. We aimed to investigate the infection rate among HD outpatients and implement CDC's surveillance system. **Methods** A multicenter prospective surveillance study is performed to investigate the infection rate among HD patients. CDC National Healthcare Safety Network dialysis event (DE) protocol is adopted for definitions and reporting. **Results** During April 2016–April 2018, 9 centers reported data. A total of 199 DEs reported in 10035 patient-months, and the overall DE rate was 1.98 per 100 patient-months. Risk of blood culture positivity is found to be 17.6 times higher when hemodialysis was through a tunneled catheter than through an arteriovenous fistula. DE rate was significantly lower in patients educated about the care of their vascular access site. Mean body mass index was significantly higher in patients with any DE. *Staphylococcus aureus* was the most causative microorganism among mortal patients. Outcomes of DEs were hospitalization (73%), loss of vascular access (18.2%), and death (7.7%). **Conclusions** This first surveillance study in Turkey gave insight into current DE status and will guide to generate a national surveillance system for maintaining much lower DE rates.

Hosted file

trhies-manuscript-short version-static.pdf available at <https://authorea.com/users/375177/articles/492518-surveillance-of-hemodialysis-related-infections-a-prospective->

multicenter-study-first-report-from-turkey

Posted on Authorea 12 Nov 2020 | The copyright holder is the author/funder. All rights reserved. No reuse without permission. | <https://doi.org/10.22541/au.160517703.36845605/v1> | This a preprint and has not been peer reviewed. Data may be preliminary.

