

Parma, April 30, 2018

## **Trapped in a dilemma: Does asymptomatic bacteriuria in kidney transplant recipients need to be treated?**

**Episodes of asymptomatic bacteriuria are quite common in kidney transplant patients, but there is no consensus yet on whether or not it has to be treated. To find out the standard approach to treatment in Europe at present, a panel of experts from the ERA-EDTA, the DESCARTES working group, and the European Study Group for Infections in Compromised Hosts of the European Society of Clinical Microbiology and Infectious Diseases designed a cross-sectional, questionnaire-based, self-administered survey. It showed that most providers of treatment take a patient-based approach.**

Episodes of asymptomatic bacteriuria are quite common in kidney transplant patients, but there is no consensus yet on whether or not it has to be treated. On the one hand, nephrologists do not want to risk severe or complicated infections developing, which might result in an impairment of graft function, and on the other hand one does not want to expose patients unnecessarily to an antimicrobial drug and risk the development of antimicrobial resistance.

What is the standard approach to management in Europe at present? Do physicians often screen for bacteriuria in asymptomatic kidney transplant recipients? When is treatment provided, and when not? What kind of treatment is provided, if any?

To find this out, a panel of experts from the European Renal Association, the European Dialysis Transplant Association, the DESCARTES (Developing Education Science and Care for Renal Transplantation in European States) working group, and the European Study Group for Infections in Compromised Hosts of the European Society of Clinical Microbiology and Infectious Diseases designed a cross-sectional, questionnaire-based, self-administered survey. Invitations to participate were emailed to European physicians involved in the care of KTRs. A total of 244 physicians from 25 different countries (representing a total of 138 institutions) participated and returned the questionnaire. The overall response was therefore about 30%. The results were recently published in NDT [1] by Julien Coussemant (Brussels/Belgium) et al.

- Most of those surveyed (72%, or 176 of 244) reported that they routinely screen kidney transplant patients for asymptomatic bacteriuria. Additionally, 18% (44/244) screened only in the first months after transplantation.
- 15% of those surveyed stated that they treated asymptomatic bacteriuria always or most of the time. Only 6% (15 of 240) said they never respond with antibiotic treatment to a positive screening result. The majority said they pursued a risk-based approach: they would treat asymptomatic bacteriuria in specific situations only, for example when a patient has a urinary device, if the patient has only recently received a kidney transplant, if the serum level of C-reactive protein is increased, if the patient has had a recent history of symptomatic UTI, or if the urine leucocyte count is elevated.
- For an episode of asymptomatic bacteriuria caused by a fully susceptible microorganism and with no contraindications, a majority of participants (121/223) said they would use a fluoroquinolone (n=56), amoxicillin/clavulanic acid (n=38) or oral cephalosporins (n=27).

In summary, the survey showed that most providers of treatment take a patient-based approach in order to find the best possible balance between essential prevention of infection and risk minimization, on the one hand, and avoiding non-essential exposure to antibiotics, on the other. There is nevertheless scarce data, and nearly no guidelines or therapy algorithms. Currently, three randomized controlled trials are comparing antibiotics versus no therapy for asymptomatic bacteriuria in kidney transplant recipients. Their results are likely to improve current practice in this field.

[1] [www.academic.oup.com/ndt/advance-article/doi/10.1093/ndt/gfy078/4964958](http://www.academic.oup.com/ndt/advance-article/doi/10.1093/ndt/gfy078/4964958)

#### **About ERA-EDTA**

With more than 7,500 members, the ERA-EDTA ("European Renal Association – European Dialysis and Transplant Association") is one of the biggest nephrology associations worldwide and one of the most important and prestigious European Medical Associations. It supports basic and clinical research in the fields of clinical nephrology, dialysis, renal transplantation and related subjects. It also supports a number of studies as well as research groups and has founded a special "Fellowship Programme" for young investigators as well as grant programmes. In order to involve young nephrologists in all its activities, ERA-EDTA has created the "Young Nephrologists' Platform" (YNP), a very active committee whose board includes members who are 40 years old or younger. In addition, it has established various working groups to promote the collaboration of nephrologists with other medical disciplines (e.g. cardiology, immunology). Furthermore, a "European Renal Best Practice" (ERBP) advisory board was established by the ERA-EDTA to draw up and publish guidelines and position statements. Another important goal of the ERA-EDTA is education: The series of CME courses combined with the annual congress offer an attractive scientific programme to cover the need for continuous medical education for doctors working in the fields of nephrology, dialysis and transplantation. The association's journals, NDT (Nephrology, Dialysis, Transplantation) and CKJ (Clinical Kidney Journal), are currently the leading nephrology journals in



Europe; furthermore NDT-Educational is the online educational journal of the society, with free access for all users, as well as being a very important and useful feature of the NDT-Educational "Literature Review". The ERA-EDTA Registry is a large epidemiologic database comparing countries by assessing nephrology practices throughout Europe. ENP, the European Nephrology Portal, is the latest new initiative of ERA-EDTA, where all those interested in the activities of the Society can find everything that is happening, all in one place. Finally, ERA-EDTA is a member of the European Kidney Health Alliance (EKHA), a consortium of patients, nurses and foundations relating to renal issues that actively interacts with the European Parliament. For more information, please visit [www.era-edta.org](http://www.era-edta.org)