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Dear Editor,

Chronic kidney disease patients display variety of oral symptoms which require exceptional care during dental procedures. The danger of dental consequences such as xerostomia, pallor, dysgeusia, and bad odor is common among dialysis patients (1). These infections can jeopardize the health of those patients who are undergoing treatment for chronic kidney disease. Recent investigations indicate that chronic periodontal infections can further impair the health of chronic kidney disease patients if oral contagions are neglected (2). Management of the kidney patient in the dental office demands scrupulous protocols in order to deliver effective oral care. The cardinal rule is to harmonize communication with the renal physician. The language behind the conversation should clearly indicate concerns about the patient's current medical condition. Furthermore, the optimal time period for dental procedures must be resolved, so as to preclude possible complications. The first 3 months after the kidney transplant is a perilous time, owing to the heightened risk of rejection of the transplanted organ (3). Non-dialysis days are considered the best days to carry out any dental treatment, since they assure the absence of circulating heparin. Dental procedures such as tooth extractions or surgical intervention ought to be practiced at the initial stages of the dialysis period. The prevailing medical condition of the patient should be stable enough to exercise the oral surgery (4). A kidney disease patient experiencing a dental crisis must have the supervision of a medical expert during any emergency dental procedures. These patients are susceptible to bleeding, which aggravates the oral condition. Before carrying out the dental procedures, a total blood count is essential. Dialysis patients experience many transmissions and blood transfers, which expose them to increased risk of contagion in the form of human immunodeficiency virus HIV, hepatitis B, hepatitis C, and tuberculosis. Continual monitoring of the patient is mandatory to prevent infection from the dental practitioner or from cross-contamination

in the hospital (5). Regarding the pharmacological aspects, dosages must be modified in accordance with the glomerular filtration rate (GFR). Before changing the dosage, a renal physician must be consulted to ensure safe dental treatment (5). The guidelines for dosage regulation are formulated with respect to pharmacokinetic and pharmacodynamic elements of antimicrobial activity for antibiotics. Antibiotic therapy is recommended prior to the intrusive dental treatment, since these patients are vulnerable to contagions (3). The administration of antibiotics is preferred if bleeding or septicemia is expected during periodontal treatment, endodontic maneuver, osteotomy or periapical surgery (3). Dental practitioners ought to carefully limit the prescription of antibiotics, especially those which possess nephrotoxic after effects and which may cause further complications during oral surgery. Usage of antibiotics is recommended only in cases of absolute necessity; otherwise, their employment can imperil the patient (6). Clear lines of communication between the dentist and the renal physician will help the chronic kidney disease patient receive the safest and most effective dental treatment. With the agreement from the renal physician, pharmacological treatments and intrusive dental procedures can be performed efficiently without jeopardizing the patient's health.

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References

1. Patil S, Khaandelwal S, Doni B, Rahuman F, Kaswan S. Oral manifestations in chronic renal failure patients attending two hospitals in North Karnataka, India. *Oral Health Dent Manag.* 2012;**11(3)**:100–106.
2. Rauch, K. US investigating a link between oral health and kidney function [Internet]. United States (US): UC San Francisco Medical Center; 2013 [cited 2013 June 4]. Available from: <https://www.ucsf.edu/news/2013/06/106406/there-link-between-oral-health-and-kidney-function>.
3. Ramu C, Padmanabhan TV. Indications of antibiotic prophylaxis in dental practice. *Asian Pac J Trop Biomed.* 2012;**2(9)**:749–754. doi: 10.1016/S2221-1691(12)60222-6.
4. National Institute of Dental and Craniofacial Research. Dental management of the organ transplant patient [Internet]. Bethesda: National Institute of Dental and Craniofacial Research; 2014 [cited 2014 Jan 6]. Available from: <http://www.nidcr.nih.gov/OralHealth/Topics/OrganTransplantationOralHealth/OrganTransplantProf.htm>.
5. Kerr AR. Update on renal disease for the dental practitioner. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2001;**92**:9–16.
6. Ramasamy C. Final thoughts on antibiotics use: wake up call for the oral health care professionals. *Asian Pac J Trop Biomed.* 2014;**4(Suppl 2)**:S564–S569. doi: 10.12980/APJTB.4.2014APJTB-2014-0274.