



A Sequence of Errors in the Collection of Urine Tests Can Generate a Big Problem for Humanity

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Introduction

In my thirty-one years as a medical graduation at the State University of Londrina in Brazil, I almost never witnessed a patient who had collected correctly the urine to perform a urinalysis. With the rush in medical care and also by the laboratory staff, we realized that even if there is a collection routine printed on paper, patients still often collect wrongly and this way, causing serious damage to themselves because an altered exam usually takes the doctor to prescribe drugs with antibiotics, which could often be avoided if the urine exam were collected correctly, especially if the problem to be elucidated is a suspicion of a urinary infection. For this reason, I am writing this article to alert the medical profession to advise how to collect urine so that it does not become contaminated, which could result in an altered test, which in fact was supposed to be normal. I have taken patients in my daily medical practice in my clinic, where I come across mothers giving antibiotics to their children, as they were in the investigation of the loss of appetite in the child, where the doctor simply collects all possible exams and finds an altered urine culture positive, without the child having symptoms of urinary tract infection. Another 4-year-old patient had a recurrent urinary tract infection, having about one urinary tract infection per month. When questioning the mother about how she collected the urine material to be sent for examination, the mother said that she often did not have a request for an examination carried out by the doctor, and many times she did not wash the child's genitalia before collecting urine. I found out at the end of the consultation that the patient did not have a urinary tract infection but there was an infection in the external genitalia due to a lack of proper hygiene, making it burn when urinating. The lack of guidance from both the medical team and the laboratory team, regarding the need to properly collect the material, to avoid contamination,

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is rarely carried out in our environment, as guidance is explained to the patient or to those responsible for the patient it takes time and nowadays, people do not have time for these things, leading a patient who does not have a urinary infection to be diagnosed with a urinary infection and, worse, taking antibiotics unnecessarily, accusing a worsening of the state of energy, which is already very low, as I reported in the article written by me (2021) whose title is Energy Alterations and Chakras' Energy Deficiencies and Propensity to SARS-CoV-2 Infection, where I show that most of the patients that I have seen currently in my clinic in Brazil have no energy in the five massive internal organs, such as the Liver, Heart, Spleen, Lungs, and Kidneys [1]. This state of lack of energy is not only happening in my patients here in Brazil, but it is happening all over the world, globally, as this is being caused by chronic exposure to electromagnetic waves from the modernization of communication technology after the implementation of cell phones and computers, leading to the reduction of these energies, that are important for energy production for our normal functioning, such as energy to see, taste, smell, hear, and communicate, which are linked to the functions of the five massive internal organs described above [2]. What patients have doubts about is that they always ask if it has to be the first urine of the morning, but if the patient has symptoms of urinary infection, he can collect it at any time, taking care of hygiene [3]. In the case of children, the mother should clean the child's intimate parts, preferably with a local bath with soap and water, and dry with a clean towel, before collecting the urine. In the case of very young children where it will be necessary to place the collection bag, it should remain for a maximum of one hour and the area should be washed again with soap and water, before placing a new collection bag if the children do not urinate during this period [4]. The urine must be sent immediately to the laboratory or if there is no condition for

this, leave the urine bottle inside the refrigerator for maximum 2 hours. When I come across the various errors in the collection of patients when performing this simple test, I am not saying that it is not the mistakes of doctors in not properly guiding their patients when collecting, and, the most interesting thing that I come across observing in the guidelines of clinical analysis laboratories, that they guide the patient not to collect the first urine and the last, that is, to collect the middle urine. However, the most interesting thing is that they do not advise that they cannot stop urinating in this interval and that the patient has to collect the urine from the middle, placing the collection bottle in the middle of the stream, without stopping urinating. If the patient stopped urinating in this interval between the first and last jet, the urine becomes contaminated and many times the result can be positive, without the patient having a urinary infection. Therefore, through this editorial I come to express the need for doctors to spare a little time to explain to the patient how to proceed with the collection of urine so that it does not become contaminated and thus, we avoid the use of antimicrobials unnecessarily, increasing resistance to antibiotics for unnecessary use. If each one of us does our job, maybe we can face and reduce a little the use of antibiotics unnecessarily, due to the wrong collection when collecting urine for analysis.

References

1. <https://covid19.who.int>
2. Weiss S, Bhat P, del Pilar Fernandez M, Bhat JG, Coritsidis GN. COVID-19 infection in ESKD: findings from a prospective disease surveillance program at dialysis facilities in New York City and Long Island. *J Am Soc Nephrol.* 2020; 31: 2517-2521.
3. Mazzaferro S, Rocca AR, Bagordo D. Waves of infection and waves of communication: the importance of sharing in the era of Covid-19. *J Nephrol.* 2021; 34: 633-636.
4. Walsh EE, Frenck Jr RW, Falsey AR, Kitchin N, Absalon J, Gurtman A, et al. Safety and immunogenicity of two RNA-based COVID-19 vaccine candidates. *N Engl J Med.* 2020; 383: 2439-2450.
5. Lan J, Ge J, Yu J, Shan S, Zhou H, Fan S, et al. Structure of the SARS-CoV-2 spike receptor-binding domain bound to the ACE2 receptor. *Nature.* 2020; 581: 215-220.
6. Voss WN, Hou YJ, Johnson NV, Delidakis G, Kim JE, Javanmardi K, et al. Prevalent, protective, and convergent IgG recognition of SARS-CoV-2 non-RBD spike epitopes. *Science.* 2021; 372: 1108-1112.
7. Liu L, Wang P, Nair MS, Yu J, Rapp M, Wang Q et al. Potent neutralising antibodies against multiple epitopes on SARS-CoV-2 spike. *Nature.* 2021; 584: 450-456.
8. Lippi G, Henry BM, Plebani M. Anti-SARS-CoV-2 antibodies testing in recipients of COVID-19 vaccination: Why, when and how? *Diagnostics.* 2021; 11: 941.
9. Deepak P, Kim W, Paley MA, Yang M, Carvidi AB, El-Qunni AA, et al. Glucocorticoids and B cell depleting agents substantially impair immunogenicity of mRNA vaccines to SARS-CoV-2. medRxiv. 2021.
10. Catry E, Favresse J, Gillot C, Bayart JL, Frérotte D, Dumoceaux M, et al. Lung Transplant Recipients Immunogenicity after Heterologous ChAdOx1 nCoV-19-BNT162b2 mRNA Vaccination *Viruses.* 2022; 14: 1470.
11. Grupper A, Sharon N, Finn T, Cohen R, Israel M, Agbaria A, et al. Humoral Response to the Pfizer BNT162b2 Vaccine in Patients Undergoing Maintenance Hemodialysis. *Clin J Am Soc Nephrol.* 2021; 16: 1037-1042.
12. Agur T, Ben-Dor N, Goldman S, Lichtenberg S, Herman-Edelstein M, Yahav D, et al. Antibody response to mRNA SARS-CoV-2 vaccine among dialysis patients - a prospective cohort study. *Nephrol Dial Transplant.* 2021; 36: 1347-1349.
13. Jahn M, Korth J, Dorsch O, Anastasiou OE, Sorge-Hädicke B, Tyczynski B, et al. Humoral response to SARS-CoV-2-vaccination with BNT162b2 (Pfizer-BioNTech) in patients on haemodialysis. *Vaccines (Basel).* 2021; 9: 360.
14. Yanay NB, Freiman S, Shapira M, Wishahi S, Hamze M, Elhaj M, et al. Experience with SARS-CoV-2 BNT162b2 mRNA vaccine in dialysis patients. *Kidney Int.* 2021; 99: 1496-1498.
15. Ducloux D, Colladant M, Chabannes M, Yannaraki M, Courivaud C. Humoral response after 3 doses of the BNT162b2 mRNA COVID-19 vaccine in patients on haemodialysis. *Kidney Int.* 2021; 100: 702-704.
16. Bensouna I, Caudwell V, Kubab S, Acquaviva S, Pardon A, Vittoz N, et al. SARS-CoV-2 antibody response after a third dose of the BNT162b2 vaccine in patients receiving maintenance haemodialysis or peritoneal dialysis. *Am J Kidney Dis.* 2022; 79: 185-192.
17. Shashar M, Nacasz N, Grupper A, Bencherit S, Halperin T, Erez D, et al. Humoral response to Pfizer BNT162b2 vaccine booster in maintenance haemodialysis patients. *Am J Nephrol.* 1-8.
18. Housset P, Kubab S, Pardon A, Vittoz N, Bozman DF, Hanafi L, et al. Waning but persistent humoral response 6 months after the third dose of the mRNA BNT162b2 vaccine in hemodialysis and peritoneal dialysis patients. *J Nephrol.* 2022; 35: 783-785.
19. Espi M, Charmetant X, Barba T, Mathieu C, Pelletier C, Koppe L, et al. A prospective observational study for justification, safety and efficacy of a third dose of mRNA vaccine in patients receiving maintenance hemodialysis. *Kidney Int.* 2022; 101: 390-402.
20. Dekervel M, Henry N, Torreggiani M, Pouteau LM, Imiela JP, Mellaza C, et al. Humoral response to a third injection of BNT162b2 vaccine in patients on maintenance haemodialysis. *Clin Kidney J.* 2021; 14: 2349-2355.
21. Robert T, Lano G, Giot M, Fourié T, de Lamballeri X, Jehel O, et al. Humoral response after SARS-CoV-2 vaccination in patients undergoing maintenance haemodialysis: loss of immunity, third dose and non-responders. *Nephrol Dial Transplant.* 2022; 37: 390-392.
22. Simon B, Rubey H, Treipl A, Gromann M, Hemedi B, Zehetmayer S, et al. Haemodialysis patients show a highly diminished antibody response after COVID-19 mRNA vaccination compared to healthy controls. *Nephrol Dial Transplant.* 2021; 36: 1709-1716.
23. Fenwick C, Croxatto A, Coste AT, Pojer F, Cyril A, Pellaton C, et al. Changes in SARS-CoV-2 Spike versus Nucleoprotein Antibody



- Responses Impact the Estimates Of Infections in Population-Based Seroprevalence Studies. *J Virol.* 2021; 95: e01828-20.
24. Walls AC, Park YJ, Tortorici MA, Wall A, McGuire AT, Veesler D. Structure, Function, and Antigenicity of the SARS-CoV-2 Spike Glycoprotein Cell. 2020; 181: 281-292.
 25. Dan JM, Mateus J, Kato Y, Hastie KM, Dawen Yu E, Faliti CE, et al. Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection. *Science.* 2021; 371: eabf4063.
 26. Varona JF, Madurga R, Peñalver F, Abarca E, Almirall C, Cruz M, et al. Kinetics of anti-SARS- CoV-2 antibodies over time. Results of 10 month follow up in over 300 seropositive health care workers. *Eur J Intern Med.* 2021; 89: 97-103.
 27. Doria-Rose N, Suthar MS, Makowski M, O'Connell S, McDermott AB, Flach B, et al. Antibody persistence through 6 months after the second dose of mRNA-1273 vaccine for COVID-19. *N Engl J Med.* 2021; 384: 2259-2261.
 28. Affeldt P, Koehler FC, Brensing KA, Gies M, Platen E, Adam V, et al. Immune Response to Third and Fourth COVID-19 Vaccination in Hemodialysis Patients and Kidney Transplant Recipients *Viruses.* 2022; 14: 2646.