

Research Assessment #3

Name: Sruthi Senthil

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Subject: Nephrology Annotated Bibliography #2

MLA Citation:

Amplitude. "What Is APOL1-Mediated Kidney Disease? | USA - Patient." *Amplitudestudy.com*,

25 Jan. 2023,

amplitudestudy.com/usa/?utm_source=google&utm_medium=paid_social&utm_campaign=googleads&gclid=CjwKCAjwgZCoBhBnEiwAz35RwgQKU4lYq_R_C99u0yFjKAUaXM-y956Fc19tIMboufEv1_ktePTlxoCHFcQAvD_BwE. Accessed 16 Sept. 2023.

Assessment:

A hereditary disorder known as APOL1 nephropathy, or APOL1-Mediated Kidney Disease, primarily affects people of African heritage. Variants in the APOL1 gene, which codes for a protein involved in innate immunity, are linked to this condition. Carriers of two APOL1 risk alleles are more likely to develop severe kidney disease, especially focal segmental glomerulosclerosis (FSGS) and end-stage kidney disease (ESKD) linked to hypertension.

Although the precise methods by which these gene variations cause kidney damage are still being researched, the disorder emphasizes the significance of genetic variables in renal health and draws attention to health disparities between various populations. Learning about APOL1-disease really ignited my interest to learn more about how this is involved with the kidneys. Now, I have new ideas and perspectives on what I can include in my work along with CKD to learn more about nephrology.

MLA Citation:

Children's Hospital. "Pediatric Nephrology Research." *Wwww.childrenscolorado.org*, 10 Feb. 2020, www.childrenscolorado.org/research-innovation/research-area/nephrology/. Accessed 16 Sept. 2023.

Assessment:

The focus of a broad range of studies in pediatric nephrology are children's kidney-related health issues. Researchers in this area look at congenital defects, inherited illnesses, and acquired problems such glomerulonephritis as well as different aspects of pediatric kidney diseases. With a focus on reducing long-term problems and raising the quality of life for young patients, they work to expand our knowledge of the underlying causes, diagnostic procedures, and treatment options for these ailments. Furthermore, research in pediatric nephrology frequently addresses the particular difficulties and factors that come up while addressing kidney illnesses in children, such as growth and development, medication dose, and the emotional impact on patients and their families. I thought reading about this article was very interesting because involving kids into nephrology might be something that I choose to do. Getting that insight from the article gave me that new understanding and I enjoyed learning about it. Hopefully, I can implement this into my original or final product with CKD to learn more about nephrology.

MLA Citation:

Huang, Yuchai, et al. "The Association between Urinary Metals/Metalloids and Chronic Kidney Disease among General Adults in Wuhan, China." *Scientific Reports*, vol. 13, no. 1, 15 Sept. 2023, p. 15321, www.nature.com/articles/s41598-023-42282-z, <https://doi.org/10.1038/s41598-023-42282-z>. Accessed 16 Sept. 2023.

Assessment:

Studying the relationship between urinary metals/metalloids and chronic kidney disease (CKD) in general adult populations in Wuhan, China, sheds important light on the environmental elements that affect kidney health. In Wuhan, researchers took urine samples from a varied range of people and measured the concentrations of several metals and metalloids, including lead, cadmium, and arsenic. The results emphasize the potential contribution of environmental exposure to the development of kidney disease by demonstrating a significant connection between elevated urine concentrations of particular metals/metalloids and an increased risk of CKD in this population. This study emphasizes how crucial it is to keep an eye on environmental factors and take steps to mitigate them in order to protect kidney health, particularly in areas with high levels of metal and metalloid contamination. This article was also a very interesting read as I was able to study a different aspect on effects of CKD. I was able to learn about specific cases, in this situation China, how there are other factors that can affect CKD. This is very useful to me as I am hoping to center my product on CKD.

MLA Citation:

Krystexxa. "Gout and Kidney Disease | KRYSTEXXA (Pegloticase)." *Www.krystexxa.com*, 13 July 2019, www.krystexxa.com/uncontrolled-chronic-gout/gout-and-kidney-disease?gclid=CjwKCAjwgZCoBhBnEiwAz35RwnoNw0p3i-eCJJqT2sCMIJVR4oAmX9IwxGlyUq_ZN--9m8TXp1r7sBoCqPAQAvD_BwE&gclidsrc=aw.ds. Accessed 16 Sept. 2023.

Assessment:

Indeed, renal illness and gout are connected. The accumulation of uric acid crystals in the joints is the hallmark of the arthritic condition known as gout. The kidneys are essential for the body's excretion of extra uric acid. Those who have kidney disease may not have adequate kidney function, which results in less efficient uric acid removal. This may cause increased blood levels of uric acid, which could increase the chance of developing gout or exacerbate current gout symptoms. In order to prevent and treat gout in those with renal disease, monitoring kidney function is crucial. Understanding how gout affects kidney disease is a very important factor while conducting my research. Since I want to center my main focus around CKD, learning about how gout affects the kidneys can allow me to do more research in that factor and even add that to my findings.

MLA Citation:

Moura-Neto, José A. ““To Be, or Not to Be” a Nephrologist: Students’ Dilemma and a Strategy for the Field.” *Blood Purification*, vol. 50, no. 4-5, 2021, pp. 696–701, www.karger.com/Article/FullText/513155, <https://doi.org/10.1159/000513155>. Accessed 19 May 2022.

Assessment:

The dilemma that medical students experience when deciding whether to pursue nephrology as a career is discussed in the article "To Be, or Not to Be" a Nephrologist. The study of kidney problems, or nephrology, is a specialized topic that might not get as much attention in medical school as other medical specializations. The research suggests a tactic to spark interest in

nephrology by highlighting its crucial function in treating complicated medical disorders like diabetes and hypertension, which are frequently associated with kidney issues. Additionally, it proposes including more nephrology content in medical school and emphasizing the necessity for nephrologists as kidney disease incidence rises globally. Since I am currently only a highschool student, learning about the future of what this career holds is very important regarding my plans. From this article, I was able to gain more insight on the future of nephrology and what I can expect from it as well as the pros and cons in deciding if becoming a nephrologist is the right choice.