Out for blood: causal inference in clinical transfusion research

Valk, S.J.

List of publications

1. Valk SJ, Caram-Deelder C, Zwaginga JJ, van der Bom JG, Middelburg RA (2019) "Donor sex and recipient outcomes." ISBT Science Series.
2. Valk SJ, Piechotta V, Kimber C, Chai KL, Monsef I, Doree C, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z et al. Convalescent plasma and hyperimmune immunoglobulin to prevent infection with SARSCoV-2. Cochrane Database Syst Rev 2021, Issue 1. Art. No.: CD013802.
3. Valk SJ, Caram-Deelder C, Evers D, de Vooght KMK, van de Kerkhof D, Wondergem MJ, Péuéiaux NCV, Hudig F, Zwaginga JJ, de Korte D, van de Watering LMG, Middelburg RA, van der Bom JG (2023) "Donor pregnancies and transfusion recipient mortality: a role for red blood cell storage?" (under review)
4. Valk SJ, Caram-Deelder C, Groenwold RHH, Evers D, de Vooght KMK, van de Kerkhof D, Wondergem MJ, Péuéiaux NCV, Hudig F, Zwaginga JJ, Middelburg RA, van der Bom JG (2023) "Transfusion of ever-pregnant donor red blood cells and mortality of male patients" (under review)
5. Valk SJ, Caram-Deelder C, Groenwold RHH, van der Bom JG (2023) "Clinical transfusion-outcomes research: A practical guide" (in preparation)
6. So-Osman C & Valk SJ (2022). "High-dose immunoglobulins from convalescent donors for patients hospitalised with COVID-19." Lancet 399(10324): 497-499.
7. So-Osman C, Bruggeman CY, Valk SJ, te Boekhorst PAW (2021) "Antistofgerelateerde behandelingen voor covid-19 bij hematologiepatiënten: een update" NTVH 4, June 2021.
8. Kimber C, Valk SJ, Chai KL, Piechotta V, Iannizzi C, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z et al. (2023). "Hyperimmune immunoglobulin for people with COVID-19." Cochrane Database Syst Rev 1(1): Cd015167.
9. Chai KL, Valk SJ, Piechotta V, Kimber C, Monsef I, Doree C, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z et al. (2020). "Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review." Cochrane Database Syst Rev 10: Cd013600.
10. Iannizzi C, Chai KL, Piechotta V, Valk SJ, Kimber C, Monsef I, Wood EM, Lamikanra AA, Roberts DJ, McQuilten Z et al. Convalescent plasma for people with COVID-19: a living systematic review. Cochrane Database Syst Rev 2023, Issue 2. Art. No.: CD013600. DOI: 10.1002/14651858.CD013600.pub5. Accessed 17 July 2023.
11. Kimber C, Lamikanra AA, Geneen LJ, Sandercock J, Doré C, Valk SJ, Estcourt LJ. (2023). "A systematic review of the safety and efficacy of convalescent plasma or immunoglobulin treatment for people with severe respiratory viral infections due to coronaviruses or influenza." Transfus Med 33(1): 26-38.
12. Kreuzberger N, Hirsch C, Chai KL, Tomlinson E, Khosravi Z, Popp M, Neidhardt M, Piechotta V, Salomon S, Valk SJ et al. (2021). "SARS-CoV-2-neutralising monoclonal antibodies for treatment of COVID-19." Cochrane Database Syst Rev 9(9): Cd013825.
13. Piechotta V, Chai KL, Valk SJ, Doree C, Monsef I, Wood EM, Lamikanra A, Kimber C, McQuilten Z, So-Osman C et al. (2020). "Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review." Cochrane Database Syst Rev 7(7): Cd013600.
14. Piechotta V, Iannizzi C, Chai KL, Valk SJ, Kimber C, Dorando E, Monsef I, Wood EM, Lamikanra AA, Roberts DJ et al. (2021). "Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a living systematic review." Cochrane Database Syst Rev 5(5): Cd013600.

Curriculum vitae

Sarah Valk was born 21 August 1994 in Woerden, the Netherlands. She is a clinical epidemiologist whose research efforts are concentrated on epidemiology and blood transfusion safety and efficacy, particularly the association between donor characteristics and patient outcomes. She has obtained a Bachelor of Science degree in Biology in 2015 and a Master of Science degree in Biomedical Science in 2018 from Leiden University in the Netherlands. Sarah has published a number of research articles in the field of transfusion medicine while working as a PhD student at Sanquin Research. In addition, she contributed to the development and continued updating of Cochrane systematic reviews on antibody-based therapies for COVID-19. Sarah followed a number of courses during her PhD trajectory to become certified as Epidemiologist B. Currently, Sarah is working on the prevention and control of healthcare-associated infections in the Netherlands, at the Dutch National Institute for Public Health and the Environment. In this capacity, she remains dedicated to strengthening the field of epidemiology.

Acknowledgements

I would like to thank everyone who has helped me over the past 5 years of performing this research. It has been a joy to work with a group of professional and dedicated researchers studying many aspects of transfusion at the Center for Clinical Transfusion Research, first at the Pelican building, then at the Poortgebouw and at the LUMC, and at the Plesmanlaan in Amsterdam. I first want to wholeheartedly acknowledge my thesis advisors. Anske, I appreciate all you have done for me, I will strive to continue working in clinical epidemiology and take your lessons with me. Jaap Jan, your suggestions and comments have always been extremely valuable and I appreciate you as a team member. Camila, without your steadfast presence and regular conversations about epidemiology and so much more, this thesis could not have been written.

Rutger Middelburg, I want to thank you for setting me on this path and allowing me to continue this important work. Aad Pors, Yavanna van Oostveen, and Dorien Heijting: thank you for all your help with the data management. I thank all the investigators of the R-FACT for supporting this research and allowing me to continue to build on this work: Dorothea Evers, Karen de Vooght, Daan van de Kerkhof, Marielle Wondergem, Nathalie Péquériaux, and Francisca Hudig. Eugenie Gemen, I want to thank you for your help and your valuable contributions. Josine Oud, thank you for the work you did for me and for sharing this PhD experience with me. All of your help is much appreciated.

During my time at the LUMC, at the Department of Clinical Epidemiology, I learned so much, both during courses and while taking in the research from other groups. I especially want to thank prof. dr. Rolf Groenwold for the valuable discussions about study design of transfusion exposure studies. Prof. dr. Frits Roosendaal, thank you for allowing me to be a part of this stimulating environment, also during the last phase of my PhD project. Suzanne Cannegieter and Masja de Haas, thank you for being in my guidance committee. Yvonne Souverein and Tamara Wienen-Groen, thank you for making me feel welcome at the department. To all my fellow PhD students: thank you for allowing me to learn, to grow and to have fun! Hilde, Lisanne, and Nina, from book club to feedback on yet another presentation, you were there. Heather, thanks for being a great roommate and my epi-buddy even before starting this PhD.

At the Rijksdienst voor Identiteitsgegevens, we tremendous support from Khadija el Hamdaoui, Diana van den Brink, and Marie-Claire Breet, which made challenging projects possible. Nicole Skoetz, Vanessa Piechotta, Khaili Chai and

Catherine Kimber, we worked a lot together and I always enjoyed it. I also want to thank Cynthia So-Osman for sharing this project with me and being available to discuss any open issues in a timely and pleasant manner.

At Sanquin Research and Blood Supply Foundation, I have felt supported and welcome. Sander Meijer, thank you for arranging anything I needed. Leo van de Watering, thank you for sharing your views and providing feedback. Dirk de Korte, you have given me guidance and insight on blood products and their contents: thank you for being available Anne-Marie van Walraven, Marieke von Lindern, and Lela Saou: thank you for meticulously going over the privacy aspects of the MATER study. Florine van Milligen and Inge Klanker, thank you for supporting my PhD trajectory over these years. Ed Slot, thank you for guiding me through the process of performing this study at Sanquin. Shannon, sharing the 'puppykamer' was a joy, and although I did not perform a simulation study in the end, I did learn a lot. Katja van den Hurk and Femmeke Prinsze, thank you for your time commitment in supporting the data collection in a safe and secure manner. Thank you all for these contributions. I know there are still many people who helped me along the way who I did not thank, or did not thank enough, so please accept my appreciation in making this PhD project a personal success.

I could not have performed these research projects without my own personal support team: Martijn, thank you for being there with a listening ear, a supportive word and a comforting snack; Daniël and Safira, thanks for the hugs, for the jokes and laughter, and for all the board games. I also want to thank my mom, Ries, and Joey for supporting us through this journey. I want to thank my dad, and Ellis, Ruud, Anneloes and Liselotte. Thank you all for your support.

As a last remark: I want to acknowledge the incredibly useful contributions of large language model GPT3.5 in the following chapters for text generation and text correction: chapter 1, chapter 7, Biography and Dutch summary; and for translation of the Dutch summary.