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Analysis of sarcoma and non-sarcoma clinical data with statistical methods and machine learning techniques

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Citation

Kantidakis, G. (2022, November 23). *Analysis of sarcoma and non-sarcoma clinical data with statistical methods and machine learning techniques*. Retrieved from <https://hdl.handle.net/1887/3486743>

Version: Publisher's Version

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Note: To cite this publication please use the final published version (if applicable).

Acknowledgements

I would like to devote this section to all those who were there during the realisation of this research. More specifically:

Professor Fiocco, dear Marta, all this started because of you, thank you very much for the opportunity to work with you at the Mathematical Institute during my master dissertation and your recommendation for an external collaboration with the European Organisation for Research and Treatment of Cancer (EORTC) that led me to Brussels to pursue a PhD. Your guidance, vision, and support were really essential to keep track of my projects' timelines and to think of new ideas.

Doctor Litière, dear Saskia, thank you very much for your help to integrate in such a special organisation as the EORTC, for your patience, valuable feedback, and pragmatism which have made my daily activities much more stimulating and meaningful. I would like to express my gratitude for your frequent psychological support during a very challenging period for me, and for allowing me to homework from Athens for an extended period of time to support my family.

Professor Gelderblom, dear Hans, I appreciate the opportunity you gave me to be part of the Leiden University Medical Center (LUMC) department of medical oncology, and I would like to thank you for being willing to think along quickly and provide me your precious clinical input during our monthly meetings. Your excellent collaboration with Marta and Saskia has made my PhD life easier.

The European Organisation for Research and Treatment of Cancer - Soft Tissue and Bone Sarcoma Group (EORTC - STBSG), the EORTC Cancer Research Fund (ECRF), and Leiden University Medical Center (LUMC) department of medical oncology, thank you for the financial support of my fellowship at EORTC headquarters.

The Scientific Registry of Transplant Recipients (SRTR), the PERSONALISED SARcoma Care (PERSARC) Study Group, and the Medical Research Council (MRC), thank you for sharing the datasets used to perform the analyses of this thesis.

The EORTC statisticians (or non-statisticians), dear all, you are such a unique group. Thank you for all the lessons you have taught me, the great conversations, and for showing me the really healthy atmosphere of a non-profit organisation. Special thanks to Zeina, Aleksandra, Catherine, Jammbe, Anouk, and Stefan for their availability and encouragement. I would also like to thank Saïda for her daily support as the fellowship coordinator.

The EORTC fellows, dear guys, thank you for being a part of this exciting journey. I hope you enjoyed your time in Brussels as much as I did, and that this period has helped you grow both professionally and personally. Special thanks to my office-mates during the first year Nicolas, Blaise, and Lien.

My good friends (from EORTC or not), dear Facundo, Felix, Lambert, Maria, Cynthia, Daniel, Andrea, Dea, Sokratis, Thodoris, Dimos, thank you very much for making my life so much better and interesting. Thank you for the great time we have spent together, and the very fruitful conversations for work and life. Your support has been fundamental especially during this very challenging family situation. I cherish all the moments we spent and we will spend together.

My family members, dear father Ioannis, mother Ourania, sister Angelikoula, the last 1.5 year was very demanding for all of us. However, this situation also strengthened our bonds more than ever. Thank you for your daily unconditional love and support. Dear father, rest in peace.

Until we meet again.

Curriculum vitae

Georgios Kantidakis was born on November 7th, 1993, in Athens, Greece. After graduating from the 4th high school of Alimos, Athens (2011), Georgios obtained a bachelor's degree in Mathematics at the National and Kapodistrian University of Athens (2011 - 2016). During his bachelor, he worked as intern in the National Bank of Greece.

In September 2016, Georgios moved to Leiden, the Netherlands, to pursue a master's degree in Statistical Science for the Life and Behavioral Sciences at Leiden University (2016 - 2018). During his master studies, he carried out an internship investigating the effect of dose reduction and delays in duration of chemotherapy in osteosarcoma patients under the supervision of prof. dr. Marta Fiocco at the Mathematical Institute of Leiden University. This project was a collaboration with prof. dr. Hans Gelderblom at the department of medical oncology of Leiden University Medical Center (LUMC). His master thesis focused on prediction models since liver transplantation with an emphasis on the comparison between traditional statistical models and machine learning techniques under the supervision of prof. dr. Marta Fiocco.

His internship and master thesis projects sparked an external collaboration with the European Organisation for Research and Treatment of Cancer (EORTC). From November 2018, Georgios moved to Brussels, Belgium, as a fellow bio-statistician at the department of statistics in EORTC headquarters, and started working on his PhD projects as a combined function under the supervision of prof. dr. Marta Fiocco, dr. Saskia Litière at EORTC headquarters, and prof. dr. Hans Gelderblom (2018 - 2022). Georgios has been teaching assistant at the Survival analysis (Advanced Biostatistics) course of LUMC in 2021 and 2022. During his PhD time, he has presented his research at conferences in Belgium, the Netherlands, and France and in several virtual meetings (ISCB 2020, ESMO 2020, ISCB 2021) after the COVID-19 pandemic outbreak. He has been working on research projects for the EORTC – Soft Tissue and Bone Sarcoma Group (STBSG), and on investigating the potential of existing and novel machine learning models compared to statistical methods for sarcoma and non-sarcoma clinical data focusing on prediction of time-to-event outcomes.

List of publications

- G. Kantidakis**, H. Putter, C. Lancia, J. de Boer, A. E. Braat, and M. Fiocco. Survival prediction models since liver transplantation - comparisons between Cox models and machine learning techniques. *BMC Medical Research Methodology*, 20(1):1–14, 2020. ISSN 14712288. doi: 10.1186/s12874-020-01153-1.
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- G. Kantidakis**, A. D. Hazewinkel, and M. Fiocco. Neural networks for survival prediction in medicine using prognostic factors: a review and critical appraisal. *Computational and Mathematical Methods in Medicine*, 2022:1176060, 2022. doi: 10.1155/2022/1176060.
- G. Kantidakis**, H. Putter, S. Litière, and M. Fiocco. Statistical models versus machine learning for competing risks: development and validation of prognostic models. *Submitted*.
- R. Saesen, **G. Kantidakis**, A. Marinus, D. Lacombe, and I. Huys. How do cancer clinicians perceive real-world data and the evidence derived therefrom? Findings from an international survey of the European Organisation for Research and Treatment of Cancer. *Frontiers in Pharmacology*, 13:969778, 2022. doi: 10.3389/fphar.2022.969778.

