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Cervical spine deformity in patients with rheumatoid arthritis: from prevention to prediction

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Curriculum Vitae

Anna Baukje Veldman was born in Zwolle, the Netherlands, on 14 January 1998. She graduated cum laude for Gymnasium Celeanum in Zwolle in 2015 and moved to Leiden to study Medicine. She started her research career together with her Medicine study and started with research for the Neurosurgical department of the Leiden University Medical Center in early 2016. First, she assisted PhD students with their research and initiated her research on rheumatoid arthritis in late 2016.

She combined this research as a PhD student with her bachelor's and master's degree in medicine as a member of the MD/PhD – track of the Honours College of Leiden University. As a member of the Honours College Medicine representation, she had an active role in the community of Honours students. She combined this, among other things, with volunteering for Taskforce Qualitative Resuscitation by Students (QRS), aiming to increase the chances of survival in cardiopulmonary arrest by teaching high school students and adults how to perform cardiopulmonary resuscitation (CPR). She later joined the national board of Taskforce QRS and taught CPR to over 4000 students.

During her master's degree in medicine, she continued her PhD in neurosurgery and started working for the ministry of defense as a student specializing in scientific research on the training regimen of the Dutch Marine Corps, among other subjects. During the summer, she worked as a beach lifeguard for the Koninklijke Nederlandse Redding Maatschappij (KNRM) on Terschelling, where she met her husband Pim. They married in 2022 and moved to Boston (United States) together for Anna Baukje's PhD. Here she worked together with other researchers as a part of the Computational Neuroscience Outcomes Center at Harvard for a year. She visited and spoke at many international conferences during her PhD, in the United States as well as in Europe. Upon their return in 2023, Anna Baukje finished her master's degree in medicine and moved to Zuid-Limburg to live together with Pim. After graduating with a final internship at the neurosurgical department in Maastricht in late 2024/early 2025, Anna Baukje left the hospital to work for a general practitioner in a small town in Zuid-Limburg.

Anna Baukje currently lives in Sittard with her husband Pim. She aims to continue her research career, combined with clinical practice.

List of publications

Lebouille-Veldman AB, Alexander G. Yearley MD, Timothy R. Smith, Aakanksha Rana, Carmen L.A. Vleggeert-Lankamp. Deep learning-based prediction for rheumatoid arthritis-associated deformity on MRI. *Brain & Spine* 2025 July 5:104328

Lebouille-Veldman AB, Jifke F. Veenland, Merel C. Goossens, Igor G. Lenting, S.G.A. Noud van Ruremonde, Nicky Sewberath Misser and Carmen L.A. Vleggeert-Lankamp. Development of a novel automated segmentation algorithm of the C1 and C2 vertebra in patients with rheumatoid arthritis: an explorative study. Submitted, 2025.

Lebouille-Veldman AB and Mahnoor Shafi (co first author), Chady Omara, Namita Kaler, Jack Kilgallon, Sulaiman Sajed, Linda Aglio, Rania A. Mekary, Carmen Vleggeert-Lankamp. The Association Between Smoking and Clinical Outcomes Among Spondylodesis Patients: A Systematic Review and Meta-Analysis. Submitted, 2025.

Lebouille-Veldman, A. B., Huizinga, T. W. J., Mekary, R. A., & Vleggeert-Lankamp, C. L. A. (2025). Infliximab use and cervical spine deformity in patients with rheumatoid arthritis. *RMD open*, 11(1), e005237. <https://doi.org/10.1136/rmdopen-2024-005237>

Lebouille-Veldman, A. B., Huizinga, T. W. J., Mekary, R. A., & Vleggeert-Lankamp, C. L. A. (2025). Prolonged glucocorticoid use and rheumatoid arthritis-associated cervical spine deformity. *Clinical rheumatology*, 44(5), 1919–1926. <https://doi.org/10.1007/s10067-025-07408-w>

Lebouille-Veldman, A. B., Spenkelink, D., Huizinga, T. W. J., & Vleggeert-Lankamp, C. L. A. (2025). Rheumatoid arthritis-associated cervical spine deformity and flares in disease activity. *Brain & spine*, 5, 104235. <https://doi.org/10.1016/j.bas.2025.104235>

Lebouille-Veldman, A. B. and Omara, C. (shared first author), Yearley, A. G., Gül, A., Withers, J., Karimi, H., Steinbuchel, E. J., Arora, H., Kilgallon, J. L., Johnston, B. R., Gerstl, J. V. E., Kryzanski, J. T., Mekary, R. A., Groff, M. W., Riesenburger, R. I., Huybregts, J. G. J., Smith, T. R., Florman, J. E., & Vleggeert-Lankamp, C. L. A. (2025). Safety of non-osseous union of type II odontoid fractures-a multi-institutional cohort study. *The spine journal : official journal of the North American Spine Society*, S1529-9430(25)00166-4. <https://doi.org/10.1016/j.spinee.2025.03.013>

Lebouille-Veldman AB, Taros TN, Nawabi NLA, Mekary RA, Peng L, Phillips J. Brief report on the efficacy of sotorasib in KRAS-Mutated NSCLC patients with brain metastases. *Lung Cancer*. 2024 Jan;187:107425. doi: 10.1016/j.lungcan.2023.107425. Epub 2023 Nov 22. PMID: 38061200.

Lebouille-Veldman AB, Singh T, Patel Y, Lassarén P, Nawabi N, Frankhauser F, Mammi M, Khawaja A, Mekary RA, Lepard JR, Smith TR. The Impact of Tort Reforms on the Neurosurgical Malpractice Environment: A Systematic Review of Literature. *World Neurosurg*. 2023 Feb 22;S1878-8750(23)00221-8. doi: 10.1016/j.wneu.2023.02.072. PMID: 36822400.

Lebouille-Veldman AB, Spenkelink D, Allaart CF, Vleggeert-Lankamp CLA. The association between Disease Activity Score and rheumatoid arthritis-associated cervical deformity: radiological evaluation of the BeSt trial. *J Neurosurg Spine*. 2023 Jan 13;38(4):465-472. doi: 10.3171/2022.12.SPINE221057. PMID: 36640102.

Lebouille-Veldman AB, Allaart CF, Vleggeert-Lankamp CLA. (2022) The Influence of Reducing Disease Activity Score on Cervical Spine Deformity in Rheumatoid Arthritis: A Systematic Review. *Biomed Res Int*. 2022 Apr 15;2022:9403883. doi: 10.1155/2022/9403883. PMID: 35463987; PMCID: PMC9033349.

Lebouille-Veldman AB et al. (2018) The safety of the use of ketamine as sedation in paediatric Emergency Room patients. *Erasmus Journal of Medicine* (peer-reviewed journal).

Non first author:

Bernstock, J. D., Mehari, M., E Gerstl, J. V., Meredith, D. M., Valdes, P. A., Heesen, P., Ambati, V. S., Krishna, S., Chen, J. A., Arora, H., Johnston, B. R., Negussie, M., Grieco, K., Nava Gonzales, C., Dada, A., **Lebouille-Veldman, A. B.**, Kabir, A., Spanehl, L., Kaur, J., Oten, S., ... Hervey-Jumper, S. L. (2025). Gabapentinoids confer survival benefit in human glioblastoma. *Nature communications*, 16(1), 4483. <https://doi.org/10.1038/s41467-025-59614-4>

Kanter, J. H., Glaser, A. C., Martinez-Camblor, P., Gerstl, J. V. E., **Lebouille-Veldman, A. B.**, Arora, H., Buhl, L., Boone, M. D., & Ogilvy, C. S. (2025). The effect of

antiseizure medication on mortality in spontaneous aneurysmal subarachnoid hemorrhage. *Journal of critical care medicine (Universitatea de Medicina si Farmacie din Targu-Mures)*, 11(2), 173–182. <https://doi.org/10.2478/jccm-2025-0014>

Taros T, **Lebouille-Veldman AB**, Phillips J, Aizer AA, Smith T, Peng LC. Clinical Utility of Dual Phase FDG PET for Distinguishing Tumor Progression from Radionecrosis in the Modern Era. *Int J Radiat Oncol Biol Phys*. 2023 Oct 1;117(2S):e726. doi: 10.1016/j.ijrobp.2023.06.2239. PMID: 37786114.

Korse NS, **Lebouille-Veldman AB**, Peul WC, Vleggeert-Lankamp CLA. (2017) The long term outcome of micturition, defecation and sexual function after spinal surgery for cauda equina syndrome. *PLoS One*. 2017 Apr 19;12(4):e0175987. doi: 10.1371/journal.pone.0175987. PMID: 28423044; PMCID: PMC5397048.

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Portfolio

PhD student: AB Lebouille-Veldman F
 Primary thesis advisor: prof.dr. CLA Vleggeert-Lankamp
 Other thesis advisor(s): prof.dr. TWJ Huizinga
 Research programme: 30601 Scientific Assessment and Innovation in Neurosurgical Treatment Strategies
 Title of Thesis: Evaluation of initiation and progression of cervical deformity in RA patients with adequately treated systemic inflammatory disease activity

PhD training		
	Year	Hours
Mandatory courses		
- Leiden University Onboarding Programme Inform & Connect (2 activities) (done)	2019	10
- Basic Methods and Reasoning in Biostatistics (done)	2019	42
- Responsible Research (2 activities) (done)	2019	42
Generic/disciplinary courses		
- Castor EDC gebruikersinstructie	2018	2.5
Congress attendance and poster or oral presentations		
- Conference attendance annual meeting of the CSRS Europe 2024 - Vienna	2024	27
- EANS annual meeting in Barcelona	2023	12
- CSRS United States Annual meeting in San Diego	2022	36
- CNS annual meeting in San Francisco	2022	36
- CSRS EU annual meeting in Barcelona	2022	27
- CSRS EU annual meeting in Paris	2021	27
Traineeship abroad		
- Research traineeship at the Computational Neuroscience Outcomes Center at Harvard, Boston (MA, USA)	2023	1600
Other activities (such as journal club)		
- Organization of Harvard Health Data conference	2022	40
Teaching activities		
Lecturing, lab assistance, student supervision		
- Neuro-anatomy assistant at snijzaal LUMC	2021	100
- Guidance of students from technical medicine for bachelor thesis project	2022	28
- Begeleiden course "statistical consulting"	2019	28
- Guidance of Honours student for technical medicine	2024	100
TOTAL number of hours		2157.5

Publications	Year
Publications in peer reviewed journals (article, review, editorial, letter to editor)	
- The long term outcome of micturition, defecation and sexual function after spinal surgery for cauda equina syndrome; Korse Nina S., Veldman Anna B., Peul Wilco C., et al.; 2017; Journal article	2017
- The association between Disease Activity Score and rheumatoid arthritis-associated cervical deformity; Lebouille-Veldman Anna B., Spenkelink Dylan, Allaart Cornelia F., et al.; 2022; Journal article	2022
- Brief report on the efficacy of sotorasib in KRAS-Mutated NSCLC patients with brain metastases; Lebouille-Veldman Anna Baukje, Taros Trent N., Nawabi Noah L. A., et al.; 2024; Journal article	2024
- Infliximab use and cervical spine deformity in patients with rheumatoid arthritis; Lebouille-Veldman Anna Baukje, Huizinga Tom W. J., Mekary Rania A., et al.; 2025; Journal article	2025
- Prolonged glucocorticoid use and rheumatoid arthritis-associated cervical spine deformity; Lebouille-Veldman Anna B., Huizinga Tom W. J., Mekary Rania A., et al.; 2025; Journal article	2025
- Rheumatoid arthritis-associated cervical spine deformity and flares in disease activity; Lebouille-Veldman Anna B., Spenkelink Dylan, Huizinga Tom W. J., et al.; 2025; Journal article	2025
- The effect of antiseizure medication on mortality in spontaneous aneurysmal subarachnoid hemorrhage; Kanter John Harold, Glaser Adam C., Martinez-Camblor Pablo, et al.; 2025; Journal article	2025
- The influence of reducing disease activity score on cervical spine deformity in rheumatoid arthritis: a systematic review; Veldman AB, Allaart CF, Vleggeert-Lankamp CLA; 2022; Review	2022
- Clinical Utility of Dual Phase FDG PET for Distinguishing Tumor Progression from Radionecrosis in the Modern Era; Taros T., Lebouille-Veldman A. B., Phillips J., et al.; 2023; Meeting abstract	2023
- The Impact of Tort Reforms on the Neurosurgical Malpractice Environment: A Systematic Review of Literature; Lebouille-Veldman Anna Baukje, Singh Tavneet, Patel Yug, et al.; 2023; Review	2023

