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I investigate and refine statistical methods for prediction research in medical care. I have particular interest and expertise in combining data from multiple sources, with individuals from different populations, settings and time periods. My goal is to facilitate the development of prediction models that yield more accurate predictions and can reliably be implemented on a wider scale.

PROFESSIONAL EXPERIENCE

<i>Assistant Professor Epidemiology</i> Julius Center for Health Sciences and Primary Care, Utrecht, The Netherlands	November 2013 – present
<i>Associate Editor</i> BMC Diagnostic and Prognostic Research	March 2016 – present
<i>Visiting Lecturer Biostatistics</i> Keele University, Keele, The United Kingdom	December 2015 – present
<i>Biostatistician</i> Cochrane Netherlands, Utrecht, The Netherlands	June 2014 – present
<i>PhD Candidate</i> Utrecht University, Utrecht, The Netherlands	September 2009 – October 2013

EDUCATION

<i>PhD, Epidemiology</i> University Medical Center Utrecht, Utrecht, The Netherlands	October 2013
<i>MSc, Clinical Epidemiology</i> Utrecht University, Utrecht, The Netherlands	June 2013

SCIENTIFIC PUBLICATIONS

1. Riley RD, Ensor J, Snell KIE, Debray TPA, Altman DG, Moons KGM, Collins GS. External validation of clinical prediction models using big datasets from e-health records or IPD meta-analysis: opportunities and challenges. **BMJ** 2016.
2. Damen JA, Hooft L, Schuit E, Debray TP, Collins GS, Tzoulaki I, Lassale CM, Siontis GC, Chiocchia V, Roberts C, Schlüssel MM, Gerry S, Black JA, Heus P, van der Schouw YT, Peelen LM, Moons KG. Prediction models for cardiovascular disease risk in the general population: systematic review. **BMJ** 2016; 353: i2416.
3. Groenwold RH, Moons KG, Pajouheshnia R, Altman DG, Collins GS, Debray TP, Reitsma JB, Riley RD, Peelen LM. Explicit inclusion of treatment in prognostic modeling was recommended in observational and randomized settings. **Journal of Clinical Epidemiology** 2016: S0895-4356(16)30030-0.
4. Efthimiou O, Debray TP, van Valkenhoef G, Trelle S, Panayidou K, Moons KG, Reitsma JB, Shang A, Salanti G, on behalf of GetReal Methods Review Group. GetReal in network meta-analysis: a review of the methodology. **Research Synthesis Methods** 2016.
5. Ayele HT, Mourik MS, Debray TP, Bonten MJ. Isoniazid Prophylactic Therapy for the Prevention of Tuberculosis in HIV Infected Adults: A Systematic Review and Meta-Analysis of Randomized Trials. **PLoS One** 2015; 10: e0142290.
6. Debray TP, Riley RD, Rovers MM, Reitsma JB, Moons KG, on behalf of Cochrane IPD Meta-analysis Methods group. Individual participant data (IPD) meta-analyses of diagnostic and prognostic modeling studies: guidance on their use. **PLoS Medicine** 2015; 12(10): e1001886.
7. Debray TP, Moons KG, van Valkenhoef G, Efthimiou O, Hummel N, Groenwold RH, Reitsma JB, on behalf of GetReal Methods Review Group. Get real in individual participant data (IPD) meta-analysis: a review of the methodology. **Research Synthesis Methods** 2015; 6(4): 293–309.
8. Snell KIE, Hua H, Debray TPA, Ensor J, Look MP, Moons KGM, Riley RD. Multivariate meta-analysis of individual participant data helped externally validate the performance and implementation of a prediction model. **Journal of clinical epidemiology** 2015.
9. Riley RD, Ahmed I, Debray TPA, Willis BH, Noordzij P, Higgins JPT, Deeks JJ. Summarising and validating test accuracy results across multiple studies for use in clinical practice. **Statistics in Medicine** 2015; 34: 2081–2103.
10. Debray TPA, Jolani S, Koffijberg H, van Buuren S, Moons KG. Imputation of systematically missing predictors in an individual participant data meta-analysis: a generalized approach using MICE. **Statistics in Medicine** 2015; 34: 1841–1863.
11. Nell S, Kist JW, Debray TPA, de Keizer B, van Oostenbrugge TJ, Borel Rinkes IH, Valk GD, Vriens MR. Qualitative elastography can replace thyroid nodule fine-needle aspiration in patients with soft thyroid nodules. A systematic review and meta-analysis. **European Journal of Radiology** 2015; 84: 652–661.
12. Debray TPA, Vergouwe Y, Koffijberg H, Nieboer D, Steyerberg EW, Moons KG. A new framework to enhance the interpretation of external validation studies of clinical prediction models. **Journal of Clinical Epidemiology** 2015; 68: 279–289.
13. Debray TPA, Koffijberg H, Nieboer D, Vergouwe Y, Steyerberg EW, Moons KG. Meta-analysis and aggregation of multiple published prediction models. **Statistics in Medicine** 2014; 33: 2341–2362.
14. Ahmed I, Debray TPA, Moons KG, Riley RD. Developing and validating risk prediction models in an individual participant data meta-analysis. **BMC Medical Research Methodology** 2013; 14: 3.

15. Onland W, Debray TPA, Laughon MM, Miedema M, Cools F, Askie LM, Asselin JM *et al.* Clinical prediction models for bronchopulmonary dysplasia: a systematic review and external validation study. **BMC Pediatrics** 2013; 13: 207.
16. Abo-Zaid G, Guo B, Deeks JJ, Debray TPA, Steyerberg EW, Moons KG, Riley RD. Individual participant data meta-analyses should not ignore clustering. **Journal of Clinical Epidemiology** 2013; e4: 865–873.
17. Debray TPA, Moons KGM, Abo-Zaid G, Koffijberg H, Riley RD. Individual participant data meta-analysis for a binary outcome: one-stage or two-stage?. **PLoS ONE** 2013; 8: e60650.
18. Debray TPA, Moons KGM, Ahmed I, Koffijberg H, Riley RD. A framework for developing, implementing and evaluating clinical prediction models in an individual participant data meta-analysis. **Statistics in Medicine** 2013; 32: 3158–3180.
19. Debray TPA, Koffijberg H, Lu D, Vergouwe Y, Steyerberg EW, Moons KGM. Incorporating published univariable associations in diagnostic and prognostic modeling. **BMC Medical Research Methodology** 2012; 12: 121.
20. Debray TPA, Koffijberg H, Vergouwe Y, Moons KGM, Steyerberg EW. Aggregating published prediction models with individual patient data: a comparison of different approaches. **Statistics in Medicine** 2012; 31: 2697–2712.
21. Janssen KJ, Siccama I, Vergouwe Y, Koffijberg H, Debray TP, Keijzer M, Grobbee DE, Moons KG. Development and validation of clinical prediction models: Marginal differences between logistic regression, penalized maximum likelihood estimation, and genetic programming. **Journal of Clinical Epidemiology** 2012; 65: 404–412.

FUNDING

- 2016. Radboud Institute for Health Sciences. Junior Researcher project 2016 – Predicting Progression in Chronic Kidney Disease. Co-lead. (Grant: EUR 240 000).
- 2015. Cochrane Methods Innovation Funds - Methods for systematic review and meta-analysis of prognostic factors and prediction modeling studies. Co-lead. (Grant: GBP 50 000).

WORK ON ADVISORY PANELS

- Biogen. WorldWide Medical Biostatistics Multiple Sclerosis Advisory Board. Statistical consultant. (August 2015 – December 2015)
- Arthritis Research UK Centre of Excellence For Sport, Exercise and Osteoarthritis. An individual patient data meta-analysis of the association between physical activity and the risk of hip and knee osteoarthritis: an international cohort collaboration. Guiding methodology for IPD meta-analysis. Senior Investigator: Prof. Nigel Arden. (January 2015 - present)
- The Blizzard Institute – Barts and the London School of Medicine and Dentistry, Queen Mary University of London. Evidence synthesis for prediction of pre-eclampsia using biochemical and ultrasound markers. Guiding methodology for IPD meta-analysis. Senior Investigator: Prof. Shakila Thangaratinam. (July 2014 - present)

More information on my projects and activities can be found on my personal website www.thomasdebray.be and my linkedin profile www.linkedin.com/in/debraythomas.