

Maarten van Smeden

List of Publications by Year in descending order

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Version: 2024-02-01

105
papers

7,596
citations

136885

32
h-index

66879

78
g-index

112
all docs

112
docs citations

112
times ranked

12434
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction models for diagnosis and prognosis of covid-19: systematic review and critical appraisal. <i>BMJ, The</i> , 2020, 369, m1328.	3.0	2,134
2	Calculating the sample size required for developing a clinical prediction model. <i>BMJ, The</i> , 2020, 368, m441.	3.0	804
3	Calibration: the Achilles heel of predictive analytics. <i>BMC Medicine</i> , 2019, 17, 230.	2.3	745
4	Protocol for development of a reporting guideline (TRIPOD-AI) and risk of bias tool (PROBAST-AI) for diagnostic and prognostic prediction model studies based on artificial intelligence. <i>BMJ Open</i> , 2021, 11, e048008.	0.8	313
5	Sample size for binary logistic prediction models: Beyond events per variable criteria. <i>Statistical Methods in Medical Research</i> , 2019, 28, 2455-2474.	0.7	296
6	No rationale for 1 variable per 10 events criterion for binary logistic regression analysis. <i>BMC Medical Research Methodology</i> , 2016, 16, 163.	1.4	281
7	Latent Class Models in Diagnostic Studies When There is No Reference Standard—A Systematic Review. <i>American Journal of Epidemiology</i> , 2014, 179, 423-431.	1.6	168
8	Development and validation of the ISARIC 4C Deterioration model for adults hospitalised with COVID-19: a prospective cohort study. <i>Lancet Respiratory Medicine</i> , 2021, 9, 349-359.	5.2	161
9	Guidelines and quality criteria for artificial intelligence-based prediction models in healthcare: a scoping review. <i>Npj Digital Medicine</i> , 2022, 5, 2.	5.7	147
10	Systematic evaluation and external validation of 22 prognostic models among hospitalised adults with COVID-19: an observational cohort study. <i>European Respiratory Journal</i> , 2020, 56, 2003498.	3.1	145
11	Time to reality check the promises of machine learning-powered precision medicine. <i>The Lancet Digital Health</i> , 2020, 2, e677-e680.	5.9	126
12	Minimum sample size for external validation of a clinical prediction model with a binary outcome. <i>Statistics in Medicine</i> , 2021, 40, 4230-4251.	0.8	122
13	Cardiac complications in patients hospitalised with COVID-19. <i>European Heart Journal: Acute Cardiovascular Care</i> , 2020, 9, 817-823.	0.4	108
14	Three myths about risk thresholds for prediction models. <i>BMC Medicine</i> , 2019, 17, 192.	2.3	101
15	Reflection on modern methods: five myths about measurement error in epidemiological research. <i>International Journal of Epidemiology</i> , 2020, 49, 338-347.	0.9	97
16	Value of composite reference standards in diagnostic research. <i>BMJ, The</i> , 2013, 347, f5605-f5605.	3.0	78
17	The harm of class imbalance corrections for risk prediction models: illustration and simulation using logistic regression. <i>Journal of the American Medical Informatics Association: JAMIA</i> , 2022, 29, 1525-1534.	2.2	74
18	Sample size considerations and predictive performance of multinomial logistic prediction models. <i>Statistics in Medicine</i> , 2019, 38, 1601-1619.	0.8	70

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19	Measurement error is often neglected in medical literature: a systematic review. <i>Journal of Clinical Epidemiology</i> , 2018, 98, 89-97.	2.4	69
20	Clinical prediction models: diagnosis versus prognosis. <i>Journal of Clinical Epidemiology</i> , 2021, 132, 142-145.	2.4	60
21	Impact of predictor measurement heterogeneity across settings on the performance of prediction models: A measurement error perspective. <i>Statistics in Medicine</i> , 2019, 38, 3444-3459.	0.8	55
22	Regression shrinkage methods for clinical prediction models do not guarantee improved performance: Simulation study. <i>Statistical Methods in Medical Research</i> , 2020, 29, 3166-3178.	0.7	55
23	Methodology over metrics: current scientific standards are a disservice to patients and society. <i>Journal of Clinical Epidemiology</i> , 2021, 138, 219-226.	2.4	54
24	Diagnostic Test Accuracy in Childhood Pulmonary Tuberculosis: A Bayesian Latent Class Analysis. <i>American Journal of Epidemiology</i> , 2016, 184, 690-700.	1.6	52
25	The quality of studies evaluating antimicrobial stewardship interventions: a systematic review. <i>Clinical Microbiology and Infection</i> , 2019, 25, 555-561.	2.8	51
26	Critical appraisal of artificial intelligence-based prediction models for cardiovascular disease. <i>European Heart Journal</i> , 2022, 43, 2921-2930.	1.0	50
27	Optimizing design of research to evaluate antibiotic stewardship interventions: consensus recommendations of a multinational working group. <i>Clinical Microbiology and Infection</i> , 2020, 26, 41-50.	2.8	49
28	Bias due to composite reference standards in diagnostic accuracy studies. <i>Statistics in Medicine</i> , 2016, 35, 1454-1470.	0.8	42
29	Prediction Models for Physical, Cognitive, and Mental Health Impairments After Critical Illness: A Systematic Review and Critical Appraisal. <i>Critical Care Medicine</i> , 2020, 48, 1871-1880.	0.4	42
30	Prognostic factors for adverse outcomes in patients with COVID-19: a field-wide systematic review and meta-analysis. <i>European Respiratory Journal</i> , 2022, 59, 2002964.	3.1	42
31	Random measurement error: Why worry? An example of cardiovascular risk factors. <i>PLoS ONE</i> , 2018, 13, e0192298.	1.1	41
32	Age is the main determinant of COVID-19 related in-hospital mortality with minimal impact of pre-existing comorbidities, a retrospective cohort study. <i>BMC Geriatrics</i> , 2022, 22, 184.	1.1	35
33	Series: Pragmatic trials and real world evidence: Paper 6. Outcome measures in the real world. <i>Journal of Clinical Epidemiology</i> , 2017, 90, 99-107.	2.4	34
34	Minimum sample size calculations for external validation of a clinical prediction model with a time-to-event outcome. <i>Statistics in Medicine</i> , 2022, 41, 1280-1295.	0.8	34
35	Evaluating Diagnostic Accuracy in the Face of Multiple Reference Standards. <i>Annals of Internal Medicine</i> , 2013, 159, 195.	2.0	32
36	Title, abstract, and keyword searching resulted in poor recovery of articles in systematic reviews of epidemiologic practice. <i>Journal of Clinical Epidemiology</i> , 2020, 121, 55-61.	2.4	32

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37	Changing predictor measurement procedures affected the performance of prediction models in clinical examples. <i>Journal of Clinical Epidemiology</i> , 2020, 119, 7-18.	2.4	31
38	Does a bounding exercise program prevent hamstring injuries in adult male soccer players? â€œ A clusterâ€œRCT. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2019, 29, 515-523.	1.3	28
39	Safety and Efficiency of Diagnostic Strategies for Ruling Out Pulmonary Embolism in Clinically Relevant Patient Subgroups. <i>Annals of Internal Medicine</i> , 2022, 175, 244-255.	2.0	27
40	Concerns about composite reference standards in diagnostic research. <i>BMJ: British Medical Journal</i> , 2018, 360, j5779.	2.4	26
41	How variation in predictor measurement affects the discriminative ability and transportability of a prediction model. <i>Journal of Clinical Epidemiology</i> , 2019, 105, 136-141.	2.4	26
42	Why methods matter in a meta-analysis: a reappraisal showed inconclusive injury preventive effect of Nordic hamstring exercise. <i>Journal of Clinical Epidemiology</i> , 2021, 140, 111-124.	2.4	26
43	The year in cardiovascular medicine 2021: digital health and innovation. <i>European Heart Journal</i> , 2022, 43, 271-279.	1.0	26
44	Clinical prediction models for mortality in patients with covid-19: external validation and individual participant data meta-analysis. <i>BMJ, The, 0, , e069881</i> .	3.0	24
45	Validation of prediction models in the presence of competing risks: a guide through modern methods. <i>BMJ, The, 0, , e069249</i> .	3.0	23
46	The Effects of Lower-Extremity Plyometric Training on Soccer-Specific Outcomes in Adult Male Soccer Players: A Systematic Review and Meta-Analysis. <i>International Journal of Sports Physiology and Performance</i> , 2020, 15, 3-17.	1.1	22
47	A Workflow for Missing Values Imputation of Untargeted Metabolomics Data. <i>Metabolites</i> , 2020, 10, 486.	1.3	20
48	A cautionary note on the use of the missing indicator method for handling missing data in prediction research. <i>Journal of Clinical Epidemiology</i> , 2020, 125, 188-190.	2.4	20
49	Ruling out pulmonary embolism across different healthcare settings: A systematic review and individual patient data meta-analysis. <i>PLoS Medicine</i> , 2022, 19, e1003905.	3.9	19
50	Risk, Clinical Course, and Outcome of Ischemic Stroke in Patients Hospitalized With COVID-19: A Multicenter Cohort Study. <i>Stroke</i> , 2021, 52, 3978-3986.	1.0	18
51	Validation study of the SCREENIVF: an instrument to screen women or men on risk for emotional maladjustment before the start of a fertility treatment. <i>Fertility and Sterility</i> , 2017, 107, 1370-1379.e5.	0.5	17
52	Approaches to addressing missing values, measurement error, and confounding in epidemiologic studies. <i>Journal of Clinical Epidemiology</i> , 2021, 131, 89-100.	2.4	17
53	Comment on Williamson et al. (OpenSAFELY): The Table 2 Fallacy in a Study of COVID-19 Mortality Risk Factors. <i>Epidemiology</i> , 2021, 32, e1-e2.	1.2	17
54	COVID-19 prediction models should adhere to methodological and reporting standards. <i>European Respiratory Journal</i> , 2020, 56, 2002643.	3.1	16

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55	Lessons learnt when accounting for competing events in the external validation of time-to-event prognostic models. <i>International Journal of Epidemiology</i> , 2022, 51, 615-625.	0.9	15
56	Developing, validating, updating and judging the impact of prognostic models for respiratory diseases. <i>European Respiratory Journal</i> , 2022, 60, 2200250.	3.1	14
57	Measurement error in continuous endpoints in randomised trials: Problems and solutions. <i>Statistics in Medicine</i> , 2019, 38, 5182-5196.	0.8	13
58	Novel diabetes subgroups. <i>Lancet Diabetes and Endocrinology</i> , 2018, 6, 439-440.	5.5	12
59	Projecting the impact of triple CFTR modulator therapy on intravenous antibiotic requirements in cystic fibrosis using patient registry data combined with treatment effects from randomised trials. <i>Thorax</i> , 2022, 77, 873-881.	2.7	11
60	Performance of binary prediction models in high-correlation low-dimensional settings: a comparison of methods. <i>Diagnostic and Prognostic Research</i> , 2022, 6, 1.	0.8	11
61	Artificial Intelligence and Statistics: Just the Old Wine in New Wineskins?. <i>Frontiers in Digital Health</i> , 2022, 4, 833912.	1.5	11
62	Event rate net reclassification index and the integrated discrimination improvement for studying incremental value of risk markers. <i>Statistics in Medicine</i> , 2017, 36, 4495-4497.	0.8	10
63	Towards an appropriate framework to facilitate responsible inclusion of pregnant women in drug development programs. <i>Trials</i> , 2018, 19, 123.	0.7	9
64	Forcing dichotomous disease classification from reference standards leads to bias in diagnostic accuracy estimates: A simulation study. <i>Journal of Clinical Epidemiology</i> , 2019, 111, 1-10.	2.4	9
65	Risk prediction models for discrete ordinal outcomes: Calibration and the impact of the proportional odds assumption. <i>Statistics in Medicine</i> , 2022, 41, 1334-1360.	0.8	9
66	Response Adjusted for Days of Antibiotic Risk (RADAR): evaluation of a novel method to compare strategies to optimize antibiotic use. <i>Clinical Microbiology and Infection</i> , 2017, 23, 980-985.	2.8	8
67	Adaptive sample size determination for the development of clinical prediction models. <i>Diagnostic and Prognostic Research</i> , 2021, 5, 6.	0.8	8
68	New-user and prevalent-user designs and the definition of study time origin in pharmacoepidemiology: A review of reporting practices. <i>Pharmacoepidemiology and Drug Safety</i> , 2021, 30, 960-974.	0.9	8
69	Mecor: An R package for measurement error correction in linear regression models with a continuous outcome. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 208, 106238.	2.6	8
70	Sex- and age specific association of new-onset atrial fibrillation with in-hospital mortality in hospitalised COVID-19 patients. <i>IJC Heart and Vasculature</i> , 2022, 39, 100970.	0.6	8
71	Efficient Sampling in Unmatched Case-Control Studies When the Total Number of Cases and Controls Is Fixed. <i>Epidemiology</i> , 2017, 28, 834-837.	1.2	7
72	Machine Learning Compared With Pathologist Assessment. <i>JAMA - Journal of the American Medical Association</i> , 2018, 319, 1725.	3.8	7

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73	Predicting 1â€Year Mortality in Older Hospitalized Patients: External Validation of the HOMR Model. <i>Journal of the American Geriatrics Society</i> , 2019, 67, 1478-1483.	1.3	7
74	Evaluation of the Value of Waist Circumference and Metabolomics in the Estimation of Visceral Adipose Tissue. <i>American Journal of Epidemiology</i> , 2022, , .	1.6	7
75	Propensity Score Estimation Using Classification and Regression Trees in the Presence of Missing Covariate Data. <i>Epidemiologic Methods</i> , 2018, 7, .	0.8	6
76	Challenges in measuring interprofessionalâ€interorganisational collaboration with a questionnaire. <i>BJGP Open</i> , 2018, 2, bjgpopen18X101385.	0.9	6
77	Prediction models for living organ transplantation are poorly developed, reported, and validated: a systematic review. <i>Journal of Clinical Epidemiology</i> , 2022, 145, 126-135.	2.4	6
78	Protect pregnant women by including them in clinical research. <i>BMJ: British Medical Journal</i> , 2018, 362, k4013.	2.4	5
79	Measures of (injury and illness) occurrence: a primer on epidemiological concepts and terminology for authors. <i>Science and Medicine in Football</i> , 2022, 6, 137-140.	1.0	4
80	Problems in detecting misfit of latent class models in diagnostic research without a gold standard were shown. <i>Journal of Clinical Epidemiology</i> , 2016, 74, 158-166.	2.4	3
81	Investigation of the â€œmâ€ in the cmRCT (cohort multiple randomized controlled trial) design revealed dependence between trial results. <i>Journal of Clinical Epidemiology</i> , 2018, 101, 119-123.	2.4	3
82	Sampling Strategies for Internal Validation Samples for Exposure Measurementâ€Error Correction: A Study of Visceral Adipose Tissue Measures Replaced by Waist Circumference Measures. <i>American Journal of Epidemiology</i> , 2021, 190, 1935-1947.	1.6	3
83	Management of superficial venous thrombosis based on individual risk profiles: protocol for the development and validation of three prognostic prediction models in large primary care cohorts. <i>Diagnostic and Prognostic Research</i> , 2021, 5, 15.	0.8	3
84	Prediction models: stepwise development and simultaneous validation is a step back. <i>Journal of Clinical Epidemiology</i> , 2021, , .	2.4	3
85	Cardiovascular vulnerability predicts hospitalisation in primary care clinically suspected and confirmed COVID-19 patients: A model development and validation study. <i>PLoS ONE</i> , 2022, 17, e0266750.	1.1	3
86	A generic nomogram for multinomial prediction models: theory and guidance for construction. <i>Diagnostic and Prognostic Research</i> , 2017, 1, 8.	0.8	2
87	Adjustment for unmeasured confounding through informative priors for the confounder-outcome relation. <i>BMC Medical Research Methodology</i> , 2018, 18, 174.	1.4	2
88	Quantitative Bias Analysis for a Misclassified Confounder. <i>Epidemiology</i> , 2020, 31, 796-805.	1.2	2
89	Causal analyses of existing databases: the importance of understanding what can be achieved with your data before analysis (commentary on HernÃ¡n). <i>Journal of Clinical Epidemiology</i> , 2022, 142, 261-263.	2.4	2
90	Testing for Two-Way Interactions in the Multigroup Common Factor Model. <i>Structural Equation Modeling</i> , 2013, 20, 98-107.	2.4	1

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91	Response to the commentary on "A nomogram was developed to enhance the use of multinomial logistic regression modelling in diagnostic research". <i>Journal of Clinical Epidemiology</i> , 2016, 78, 7-9.	2.4	1
92	The prognostic value of the hamstring outcome score to predict the risk of hamstring injuries. <i>Journal of Science and Medicine in Sport</i> , 2021, 24, 641-646.	0.6	1
93	Identifying adults with acute rhinosinusitis in primary care that benefit most from antibiotics: protocol of an individual patient data meta-analysis using multivariable risk prediction modelling. <i>BMJ Open</i> , 2021, 11, e047186.	0.8	1
94	Patient factors associated with referral to inpatient rehabilitation following knee or hip arthroplasty in a public sector cohort: A prognostic factor study. <i>Journal of Evaluation in Clinical Practice</i> , 2021, 27, 809-816.	0.9	1
95	A comparison of full model specification and backward elimination of potential confounders when estimating marginal and conditional causal effects on binary outcomes from observational data. <i>Biometrical Journal</i> , 2024, 66, .	0.6	1
96	The Preventive Effect Of A Bounding Exercise Programme On Hamstring Injuries In Amateur Male Soccer. <i>Medicine and Science in Sports and Exercise</i> , 2018, 50, 622-623.	0.2	0
97	Comparability of treatment arms does not prevent correlated trial results. <i>Journal of Clinical Epidemiology</i> , 2019, 106, 144-145.	2.4	0
98	Flaws in the Development and Validation of a Coronavirus Disease 2019 Prediction Model. <i>Clinical Infectious Diseases</i> , 2021, 73, 557-558.	2.9	0
99	A weighting method for simultaneous adjustment for confounding and joint exposure-outcome misclassifications. <i>Statistical Methods in Medical Research</i> , 2021, 30, 473-487.	0.7	0
100	Why clinical context and relevant protocols matter: author's reply. <i>Journal of Clinical Epidemiology</i> , 2021, , .	2.4	0
101	QCOVID in Scotland: time to recalibrate our expectations?. <i>Thorax</i> , 2022, 77, 429-430.	2.7	0
102	159...HaOS or CHaOS? The prognostic value of the hamstring outcome score (HaOS) to predict the risk of hamstring injury. , 2021, , .		0
103	Are Off-Field Activities an Underestimated Risk for Hamstring Injuries in Dutch Male Amateur Soccer Players? An Exploratory Analysis of a Prospective Cohort Study. <i>Journal of Science in Sport and Exercise</i> , 2022, 4, 28-36.	0.4	0
104	External validation of the MSKCC nomogram to estimate five-year overall survival after surgery for stage "III colon cancer in a Dutch population. <i>Acta Oncologica</i> , 2022, 61, 560-565.	0.8	0
105	Optimising telephone triage of patients calling for acute shortness of breath during out-of-hours primary care: protocol of a multiple methods study (Opticall). <i>BMJ Open</i> , 2022, 12, e059549.	0.8	0