

Addressing Treatment Switching Bias with G-methods: Exploring the Impact of Model Specification

Amani Al Tawil^{*1,2}, Sean McGrath³, Robin Ristl^{†4}, and Ulrich Mansmann^{†1,2}

¹*Institute for Medical Information Processing, Biometry, and Epidemiology (IBE), Faculty of Medicine, Ludwig-Maximilians-Universität München*

²*Pettenkofer School of Public Health, Faculty of Medicine, Ludwig-Maximilians-Universität München*

³*Department of Biostatistics, Harvard T.H. Chan School of Public Health*

⁴*Center for Medical Data Science, Medical University of Vienna*

Electronic Supplementary Material 1

Data Dictionary

^{*}Correspondence: altawil@ibe.med.uni-muenchen.de

[†]Equally contributed

Data Dictionary

Participant Identifier	Variable Name	Variable Type	Coding
Participant ID	id	Numerical	Unique numerical number

Time	Variable Name	Variable Type	Coding
Follow-up time	time	Discrete, numerical	Follow-up time (months since baseline)
Progression time	proptime	Continuous	Time at progression (months since baseline)

Baseline Covariates	Variable Name	Variable Type	Coding
Age	AGE	Continuous	Years
Sex	SEX	Binary	0: Male 1: Female
Race	RACEGR1	Binary	0: Non-asian 1: Asian
Eastern Cooperative Oncology Group score (ECOG)	ECOGGR1	Binary	0: 0 1: 1,2,3,4 or 5
Smoking history	SMKHISGR1	Binary	0: Never 1: Ever
Measurable intracranial central nervous system (CNS) disease	MICNSFL	Binary	0: No measurable intracranial disease 1: Measurable intracranial disease
Prior radiation therapy	PRRADYN	Binary	0: No prior radiation therapy 1: Prior radiation therapy
Strata at randomization (baseline brain metastases and previous chemotherapy)	STRATRAN	Categorical	0: No iCNS metastasis/No prior chemo 1: iCNS metastasis/No prior chemo 2: No iCNS metastasis/Prior chemo 3: iCNS metastasis/Prior chemo
Initial cancer diagnosis stage	DIAGINITGR3	Categorical	0: IV 1: IIIB 2: IIIA 3: IIA,IB or IA
Lung involvement at study entry	LIASE	Categorical	0: Both 1: Right 2: Left 3: Lung not involved

Time-Varying Covariates	Variable Name	Variable Type	Coding
Disease progression	progttd	Binary	0: No progression 1: Progression
Intracranial disease progression	icprogttd	Binary	0: No intracranial progression 1: Intracranial progression
ECOG	ecogtdGR1	Binary	0: 0 1: 1,2,3,4 and 5
	ecogtdGR2	Categorical	0: 0 1: 1 2: 2,3,4 or 5
Target-lesion size	tltd_wins	Continuous	mm
Switching status	xotd	Binary	0: No switching 1: switching

Treatment	Variable Name	Variable Type	Coding
Treatment randomized	plannedtrt	Binary	0: Crizotinib 1: Brigatinib
Treatment received	trtttd	Binary	0: Crizotinib 1: Brigatinib

Outcome	Variable Name	Variable Type	Coding
Death	deathtd	Binary	0: Alive 1: Died

Lost to follow-up	Variable Name	Variable Type	Coding
Censoring due to loss to follow-up / administrative censoring	censoringtd_new	Binary	0: No censoring 1: Censoring