Supplement 2

Estimation of the expected mean survival time

First, we defined the expected MOST as 13.65 months. This is a well-established point confirmed either by official SEER data and a reliable retrospective analysis.[1] Then, we defined that median progression-free survival after 1st–line treatment, based on the data of 9 cohorts of 6 independent trials (Table S1), equals 7.5 months, and it well corresponds with general opinion that GBM relapses in 6-9 months after diagnosis. To define the most problematic final parameter MST since relapse, we studied the inner structure of the survival time, namely time-proportions between MOST, PFS and MST, on eight cohorts for which this information was available simultaneously (Table S2). Finally, we translated these data on the established MOST and MPFS and calculated the expected MST as 4.775 months (95%CI: 3.9 – 5.6) (Table S3).

Table S1. Median progression-free survival after standard 1-2 line treatment of GBM (WHO IV).

Study	Tumor, state	Treatment	MPFS m
Jungk (2016)[2]	GBM, recurrent/progressive	2M (mainly no CTX)	6,10
Reithmeier (2010)[3]	GBM, recurrent/progressive	3M (mainly TMZ)	8,72
Hamza (2014)[4]	GBM, recurrent/progressive	3M	8,10
Hamza (2014)[4]	GBM, recurrent/progressive	3M	7,60
Strik (2008)[5]	GBM, recurrent/progressive	3M Stupp	7,53
Chinot (2014)[6]	GBM, newly diagnosed	3M Stupp	6,20
Gilbert (2014)[7]	GBM, newly diagnosed	3M Stupp	7,30
Gilbert (2013)[8]	GBM, newly diagnosed	3M Stupp	7,50
Gilbert (2013)[8]	GBM, newly diagnosed	3M ddTMZ	8,80
Average			7,56

Note: CTX: chemotherapy; TMZ: temozolomide; 3M – trimodal (SRG + XRT + CTX); 2M: bimodal (no CTX); Stupp: 3M SRG + (XRT 60 Gy X6w + TMZ 5/7d X 6w) + TMZ 5/28d X 6m; ddTMZ: dose-dense TMZ.

Table S2. Inner structure of survival time.

Study	Cohort	NOP	MOST	MPFS	MST	MST%	PFS+ MST	PFS+ MST%
Varkoniy (2003)	HGG	24	22,0	12,2	6,5	30%	18,7	85%
Sahinbas (2007)	GBM (all)	76	20,0	8,5	7,6	38%	16,1	80%
	GBM (mEHT)	18	14,8	8,0	6,4	43%	14,4	97%
	GBM mEHT+TMZ)	58	20,9	9,3	7,6	36%	16,9	81%
Jungk (2016)	GBM	34	15,7	6,1	8,7	56%	14,8	94%
Hamza (2014)	GBM (early BEV)	112	20,8	8,1	11,0	53%	19,1	92%
	GBM (late BEV)	133	25,9	7,6	9,9	38%	17,5	68%
Strik (2008)	GBM	18	17,9	8,2	9,1	51%	17,3	97%
	Weighted average		21,5	8,2	9,1	43%	17,3	82%
	95%CI					36,9% – 48,8%		75,3%– 88,8%

Note: NOP: number of patients; MOST: median overall survival time; MPFS: median progression-free survival; MST: median survival time since relapse; PFS: progression-free survival; HGG: high-grade gliomas; GBM: glioblastoma; mEHT: modulated electro-hyperthermia; TMZ: temozolomide; BEV: bevacizumab; CI: confidence interval.

Table S3. Calculation of estimated mean survival time since relapse.

		95% CI		
	Mean	Lower limit	Upper limit	SE
MOST, months	13,65			
MPFS, months	7,5			
MPFS+MST (%)	82,0%	75,3%	88,8%	
MPFS+MST, months	11,2	10,3	12,1	
mST (1st estimation), months	3,7	2,8	4,6	
MST (%)	42,9%	36,9%	48,8%	

		95% CI		
	Mean	Lower limit	Upper limit	SE
MST (2nd estimation), months	5,9	5,0	6,7	
mST (average), months	**4,775**	**3,9**	**5,6**	**0,443**

Note: MOST: median overall survival time; MPFS: median progression-free survival; MST: median survival time since relapse.

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