Figure 1 – Heavy Chain Protein Sequence

Sequence Name: Ab6

FR1	EVQLVESGGGLVQPGGSLRLSCAVSGIDLS	SEQ ID NO: 203
CDR1	GYYMN	SEQ ID NO: 204
FR2	WVRQAPGKGLEWVG	SEQ ID NO: 205
CDR2	VIGINGATYYASWAKG	SEQ ID NO: 206
FR3	RFTISRDNSKTTVYLQMNSLRAEDTAVYFCAR	SEQ ID NO: 207
CDR3	GDI	SEQ ID NO: 208
FR4	WGQGTLVTVSS	SEQ ID NO: 209
Variable Region	EVQLVESGGGLVQPGGSLRLSCAVSGIDLSGYYMNWV RQAPGKGLEWVGVIGINGATYYASWAKGRFTISRDNS KTTVYLQMNSLRAEDTAVYFCARGDIWGQGTLVTVSS	SEQ ID NO: 202
Constant Region	ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPV TVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSS SLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPP CPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRV VSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSD IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVD KSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK	SEQ ID NO: 564
Alternative constant region	ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPV TVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSS SLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPP CPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRV VSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSD IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVD KSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPG	SEQ ID NO: 565
Full length Heavy Chain	EVQLVESGGGLVQPGGSLRLSCAVSGIDLSGYYMNWV RQAPGKGLEWVGVIGINGATYYASWAKGRFTISRDNS KTTVYLQMNSLRAEDTAVYFCARGDIWGQGTLVTVSS ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPV TVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSS SLGTQTYICNVNHKPSNTKVDARVEPKSCDKTHTCPP CPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRV VSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSD IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVD KSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPGK	SEQ ID NO: 201
Alternative Full length Heavy Chain	EVQLVESGGGLVQPGGSLRLSCAVSGIDLSGYYMNWV RQAPGKGLEWVGVIGINGATYYASWAKGRFTISRDNS KTTVYLQMNSLRAEDTAVYFCARGDIWGQGTLVTVSS ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPV TVSWNSGALTSGVHTFPAVLQSSGLYSLSSVVTVPSS SLGTQTYICNVNHKPSNTKVDARVEPKSCDKTHTCPP CPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVVD VSHEDPEVKFNWYVDGVEVHNAKTKPREEQYASTYRV VSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKA KGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSD IAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVD KSRWQQGNVFSCSVMHEALHNHYTQKSLSLSPG	SEQ ID NO: 566

Figure 2 – Light Chain Protein Sequence

Sequence Name: Ab6

FR1	QVLTQSPSSLSASVGDRVTINC	SEQ ID NO: 223
CDR1	QASQSVYHNTYLA	SEQ ID NO: 224
FR2	WYQQKPGKVPKQLIY	SEQ ID NO: 225
CDR2	DASTLAS	SEQ ID NO: 226
FR3	GVPSRFSGSGSGTDFTLTISSLQPEDVATYYC	SEQ ID NO: 227
CDR3	LGSYDCTNGDCFV	SEQ ID NO: 228
FR4	FGGGTKVEIKR	SEQ ID NO: 229
Variable Region	QVLTQSPSSLSASVGDRVTINCQASQSVYHNTYLAWY QQKPGKVPKQLIYDASTLASGVPSRFSGSGSGTDFTL TISSLQPEDVATYYCLGSYDCTNGDCFVFGGGTKVEI KR	SEQ ID NO: 222
Constant Region	TVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAK VQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLTLS KADYEKHKVYACEVTHQGLSSPVTKSFNRGEC	SEQ ID NO: 563
Full length light Chain	QVLTQSPSSLSASVGDRVTINCQASQSVYHNTYLAWY QQKPGKVPKQLIYDASTLASGVPSRFSGSGSGTDFTL TISSLQPEDVATYYCLGSYDCTNGDCFVFGGGTKVEI KRTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPRE AKVQWKVDNALQSGNSQESVTEQDSKDSTYSLSSTLT LSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC	SEQ ID NO: 221

Figure 3 – Heavy Chain DNA Sequence

Sequence Name: Ab6

FR1	GAGGTGCAGCTTGTGGAGTCTGGGGGAGGCTTGGTCC AGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGTCTC TGGAATCGACCTCAGT	SEQ ID NO: 213
CDR1	GGCTACTACATGAAC	SEQ ID NO: 214
FR2	TGGGTCCGTCAGGCTCCAGGGAAGGGGCTGGAGTGGG TCGGA	SEQ ID NO: 215
CDR2	GTCATTGGTATTAATGGTGCCACATACTACGCGAGCT GGGCGAAAGGC	SEQ ID NO: 216
FR3	CGATTCACCATCTCCAGAGACAATTCCAAGACCACGG TGTATCTTCAAATGAACAGCCTGAGAGCTGAGGACAC TGCTGTGTATTTCTGTGCTAGA	SEQ ID NO: 217
CDR3	GGGGACATC	SEQ ID NO: 218
FR4	TGGGGCCAAGGGACCCTCGTCACCGTCTCGAGC	SEQ ID NO: 219
Variable Region	GAGGTGCAGCTTGTGGAGTCTGGGGGAGGCTTGGTCC AGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGTCTC TGGAATCGACCTCAGTGGCTACTACATGAACTGGGTC CGTCAGGCTCCAGGGAAGGGGCTGGAGTGGGTCGGAG TCATTGGTATTAATGGTGCCACATACTACGCGAGCTG GGCGAAAGGCCGATTCACCATCTCCAGAGACAATTCC AAGACCACGGTGTATCTTCAAATGAACAGCCTGAGAG CTGAGGACACTGCTGTGTATTTCTGTGCTAGAGGGGA CATCTGGGGCCAAGGGACCCTCGTCACCGTCTCGAGC	SEQ ID NO: 212
Full length Heavy Chain	GAGGTGCAGCTTGTGGAGTCTGGGGGAGGCTTGGTCC AGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGTCTC TGGAATCGACCTCAGTGGCTACTACATGAACTGGGTC CGTCAGGCTCCAGGGAAGGGGCTGGAGTGGGTCGGAG TCATTGGTATTAATGGTGCCACATACTACGCGAGCTG GGCGAAAGGCCGATTCACCATCTCCAGAGACAATTCC AAGACCACGGTGTATCTTCAAATGAACAGCCTGAGAG CTGAGGACACTGCTGTGTATTTCTGTGCTAGAGGGGA CATCTGGGGCCAAGGGACCCTCGTCACCGTCTCGAGC GCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCAC CCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCT GGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTG ACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCG TGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACT CTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGC AGCTTGGGCACCCAGACCTACATCTGCAACGTGAATC ACAAGCCCAGCAACACCAAGGTGGACGCGAGAGTTGA GCCCAAATCTTGTGACAAAACTCACACATGCCCACCG TGCCCAGCACCTGAACTCCTGGGGGGACCGTCAGTCT TCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGAT CTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGAC GTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGT ACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAA GCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTG GTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGA ATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGC CCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCC AAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGC CCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAG CCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGAC	SEQ ID NO: 211

Figure 3 - Continued

	ATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGA ACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGA CGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCT CCGTGATGCATGAGGCTCTGCACAACCACTACACGCA GAAGAGCCTCTCCCTGTCTCCGGGTAAATGA	
Alternative Full length Heavy Chain	GAGGTGCAGCTTGTGGAGTCTGGGGGAGGCTTGGTCC AGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGTCTC TGGAATCGACCTCAGTGGCTACTACATGAACTGGGTC CGTCAGGCTCCAGGGAAGGGGCTGGAGTGGGTCGGAG TCATTGGTATTAATGGTGCCACATACTACGCGAGCTG GGCGAAAGGCCGATTCACCATCTCCAGAGACAATTCC AAGACCACGGTGTATCTTCAAATGAACAGCCTGAGAG CTGAGGACACTGCTGTGTATTTCTGTGCTAGAGGGGA CATCTGGGGCCAAGGGACCCTCGTCACCGTCTCGAGC GCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCAC CCTCCTCCAAGAGCACCTCTGGGGGCACAGCGGCCCT GGGCTGCCTGGTCAAGGACTACTTCCCCGAACCGGTG ACGGTGTCGTGGAACTCAGGCGCCCTGACCAGCGGCG TGCACACCTTCCCGGCTGTCCTACAGTCCTCAGGACT CTACTCCCTCAGCAGCGTGGTGACCGTGCCCTCCAGC AGCTTGGGCACCCAGACCTACATCTGCAACGTGAATC ACAAGCCCAGCAACACCAAGGTGGACGCGAGAGTTGA GCCCAAATCTTGTGACAAAACTCACACATGCCCACCG TGCCCAGCACCTGAACTCCTGGGGGGACCGTCAGTCT TCCTCTTCCCCCCAAAACCCAAGGACACCCTCATGAT CTCCCGGACCCCTGAGGTCACATGCGTGGTGGTGGAC GTGAGCCACGAAGACCCTGAGGTCAAGTTCAACTGGT ACGTGGACGGCGTGGAGGTGCATAATGCCAAGACAAA GCCGCGGGAGGAGCAGTACGCCAGCACGTACCGTGTG GTCAGCGTCCTCACCGTCCTGCACCAGGACTGGCTGA ATGGCAAGGAGTACAAGTGCAAGGTCTCCAACAAAGC CCTCCCAGCCCCCATCGAGAAAACCATCTCCAAAGCC AAAGGGCAGCCCCGAGAACCACAGGTGTACACCCTGC CCCCATCCCGGGAGGAGATGACCAAGAACCAGGTCAG CCTGACCTGCCTGGTCAAAGGCTTCTATCCCAGCGAC ATCGCCGTGGAGTGGGAGAGCAATGGGCAGCCGGAGA ACAACTACAAGACCACGCCTCCCGTGCTGGACTCCGA CGGCTCCTTCTTCCTCTACAGCAAGCTCACCGTGGAC AAGAGCAGGTGGCAGCAGGGGAACGTCTTCTCATGCT CCGTGATGCATGAGGCTCTGCACAACCACTACACGCA GAAGAGCCTCTCCCTGTCTCCGGGTTGA	SEQ ID NO: 567

Figure 4 – Light Chain DNA Sequence

Sequence Name: Ab6

FR1	CAAGTGCTGACCCAGTCTCCATCCTCCCTGTCTGCAT CTGTAGGAGACAGAGTCACCATCAATTGC	SEQ ID NO: 233
CDR1	CAGGCCAGTCAGAGTGTTTATCATAACACCTACCTGG CC	SEQ ID NO: 234
FR2	TGGTATCAGCAGAAACCAGGGAAAGTTCCTAAGCAAC TGATCTAT	SEQ ID NO: 235
CDR2	GATGCATCCACTCTGGCATCT	SEQ ID NO: 236
FR3	GGGGTCCCATCTCGTTTCAGTGGCAGTGGATCTGGGA CAGATTTCACTCTCACCATCAGCAGCCTGCAGCCTGA AGATGTTGCAACTTATTACTGT	SEQ ID NO: 237
CDR3	CTGGGCAGTTATGATTGTACTAATGGTGATTGTTTTG TT	SEQ ID NO: 238
FR4	TTCGGCGGAGGAACCAAGGTGGAAATCAAACGT	SEQ ID NO: 239
Variable Region	CAAGTGCTGACCCAGTCTCCATCCTCCCTGTCTGCAT CTGTAGGAGACAGAGTCACCATCAATTGCCAGGCCAG TCAGAGTGTTTATCATAACACCTACCTGGCCTGGTAT CAGCAGAAACCAGGGAAAGTTCCTAAGCAACTGATCT ATGATGCATCCACTCTGGCATCTGGGGTCCCATCTCG TTTCAGTGGCAGTGGATCTGGGACAGATTTCACTCTC ACCATCAGCAGCCTGCAGCCTGAAGATGTTGCAACTT ATTACTGTCTGGGCAGTTATGATTGTACTAATGGTGA TTGTTTTGTTTTCGGCGGAGGAACCAAGGTGGAAATC AAACGT	SEQ ID NO: 232
Full length light Chain	CAAGTGCTGACCCAGTCTCCATCCTCCCTGTCTGCAT CTGTAGGAGACAGAGTCACCATCAATTGCCAGGCCAG TCAGAGTGTTTATCATAACACCTACCTGGCCTGGTAT CAGCAGAAACCAGGGAAAGTTCCTAAGCAACTGATCT ATGATGCATCCACTCTGGCATCTGGGGTCCCATCTCG TTTCAGTGGCAGTGGATCTGGGACAGATTTCACTCTC ACCATCAGCAGCCTGCAGCCTGAAGATGTTGCAACTT ATTACTGTCTGGGCAGTTATGATTGTACTAATGGTGA TTGTTTTGTTTTCGGCGGAGGAACCAAGGTGGAAATC AAACGTACGGTGGCTGCACCATCTGTCTTCATCTTCC CGCCATCTGATGAGCAGTTGAAATCTGGAACTGCCTC TGTTGTGTGCCTGCTGAATAACTTCTATCCCAGAGAG GCCAAAGTACAGTGGAAGGTGGATAACGCCCTCCAAT CGGGTAACTCCCAGGAGAGTGTCACAGAGCAGGACAG CAAGGACAGCACCTACAGCCTCAGCAGCACCCTGACG CTGAGCAAAGCAGACTACGAGAAACACAAAGTCTACG CCTGCGAAGTCACCCATCAGGGCCTGAGCTCGCCCGT CACAAAGAGCTTCAACAGGGGAGAGTGTTAG	SEQ ID NO: 231

Figure 5

Heavy Chain Protein Sequence Features

Antibody	Variable Region Coordinates	SEQ ID NO:	CDR1 Coordinates	SEQ ID NO:	CDR2 Coordinates	SEQ ID NO:	CDR3 Coordinates	SEQ ID NO:
Ab6	1-111	202	31-35	204	50-65	206	98-100	208

Figure 6

Heavy Chain Protein Sequence Features

Antibody	FR1 Coordinates	SEQ ID NO:	FR2 Coordinates	SEQ ID NO:	FR3 Coordinates	SEQ ID NO:	FR4 Coordinates	SEQ ID NO:	Constant Region Coordinates	SEQ ID NO:
Ab6	1-30	203	36-49	205	66-97	207	101-111	209	112-441	564
									112-440	565

Figure 7

Light Chain Protein Sequence Features

Antibody	Variable Region Coordinates	SEQ ID NO:	CDR1 Coordinates	SEQ ID NO:	CDR2 Coordinates	SEQ ID NO:	CDR3 Coordinates	SEQ ID NO:
Ab6	1-113	222	23-35	224	51-57	226	90-102	228

Figure 8

Light Chain Protein Sequence Features

Antibody	FR1 Coordinates	SEQ ID NO:	FR2 Coordinates	SEQ ID NO:	FR3 Coordinates	SEQ ID NO:	FR4 Coordinates	SEQ ID NO:	Constant Region Coordinates	SEQ ID NO:
Ab6	1-22	223	36-50	225	58-89	227	103-113	229	114-219	563

Figure 9

Heavy Chain DNA Sequence Features

Antibody	Variable Region Coordinates	SEQ ID NO:	CDR1 Coordinates	SEQ ID NO:	CDR2 Coordinates	SEQ ID NO:	CDR3 Coordinates	SEQ ID NO:
Ab6	1-333	212	91-105	214	148-195	216	292-300	218

Figure 10

Heavy Chain DNA Sequence Features

Antibody	FR1 Coordinates	SEQ ID NO:	FR2 Coordinates	SEQ ID NO:	FR3 Coordinates	SEQ ID NO:	FR4 Coordinates	SEQ ID NO:
Ab6	1-90	213	106-147	215	196-291	217	301-333	219

Figure 11

Light Chain DNA Sequence Features

Antibody	Variable Region Coordinates	SEQ ID NO:	CDR1 Coordinates	SEQ ID NO:	CDR2 Coordinates	SEQ ID NO:	CDR3 Coordinates	SEQ ID NO:
Ab6	1-339	232	67-105	234	151-171	236	268-306	238

Figure 12

Light Chain DNA Sequence Features

Antibody	FR1 Coordinates	SEQ ID NO:	FR2 Coordinates	SEQ ID NO:	FR3 Coordinates	SEQ ID NO:	FR4 Coordinates	SEQ ID NO:
Ab6	1-66	233	106-150	235	172-267	237	307-339	239

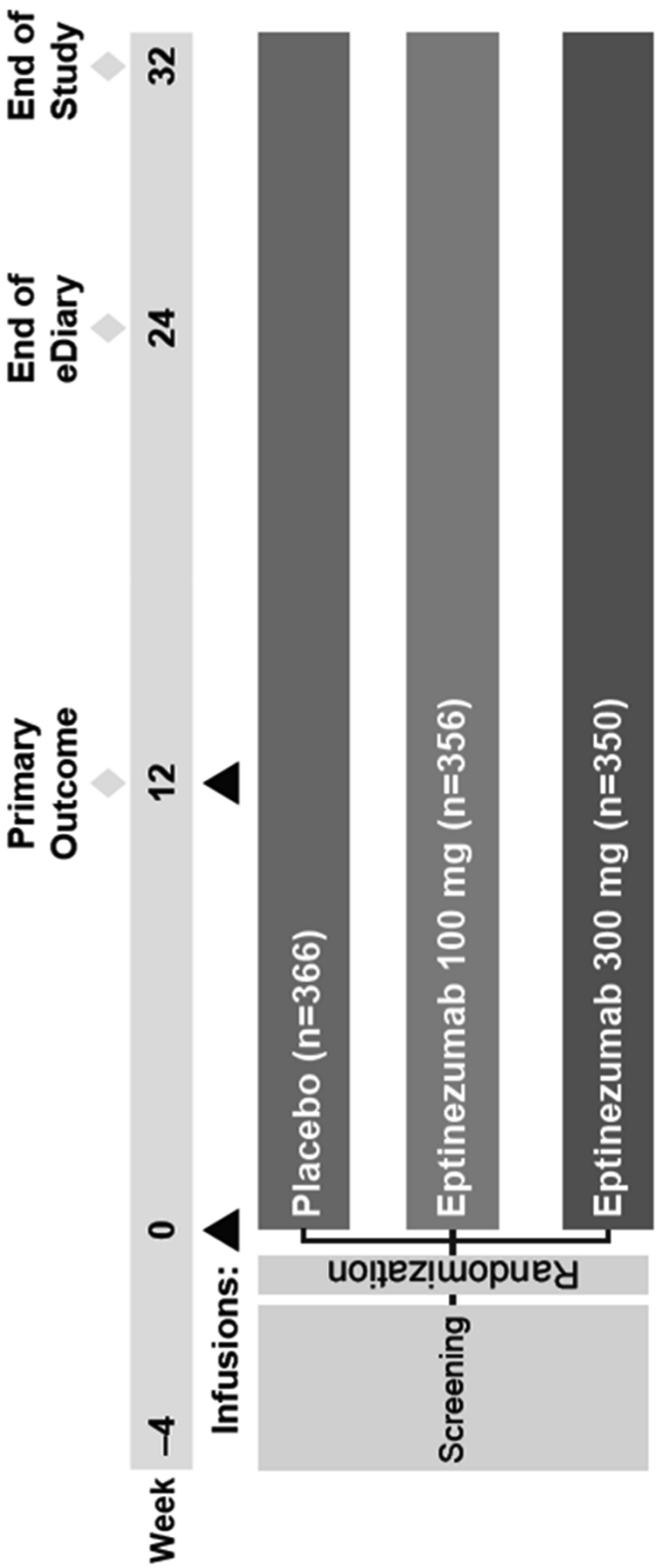


Fig 13 - Study design of clinical trial of example 2

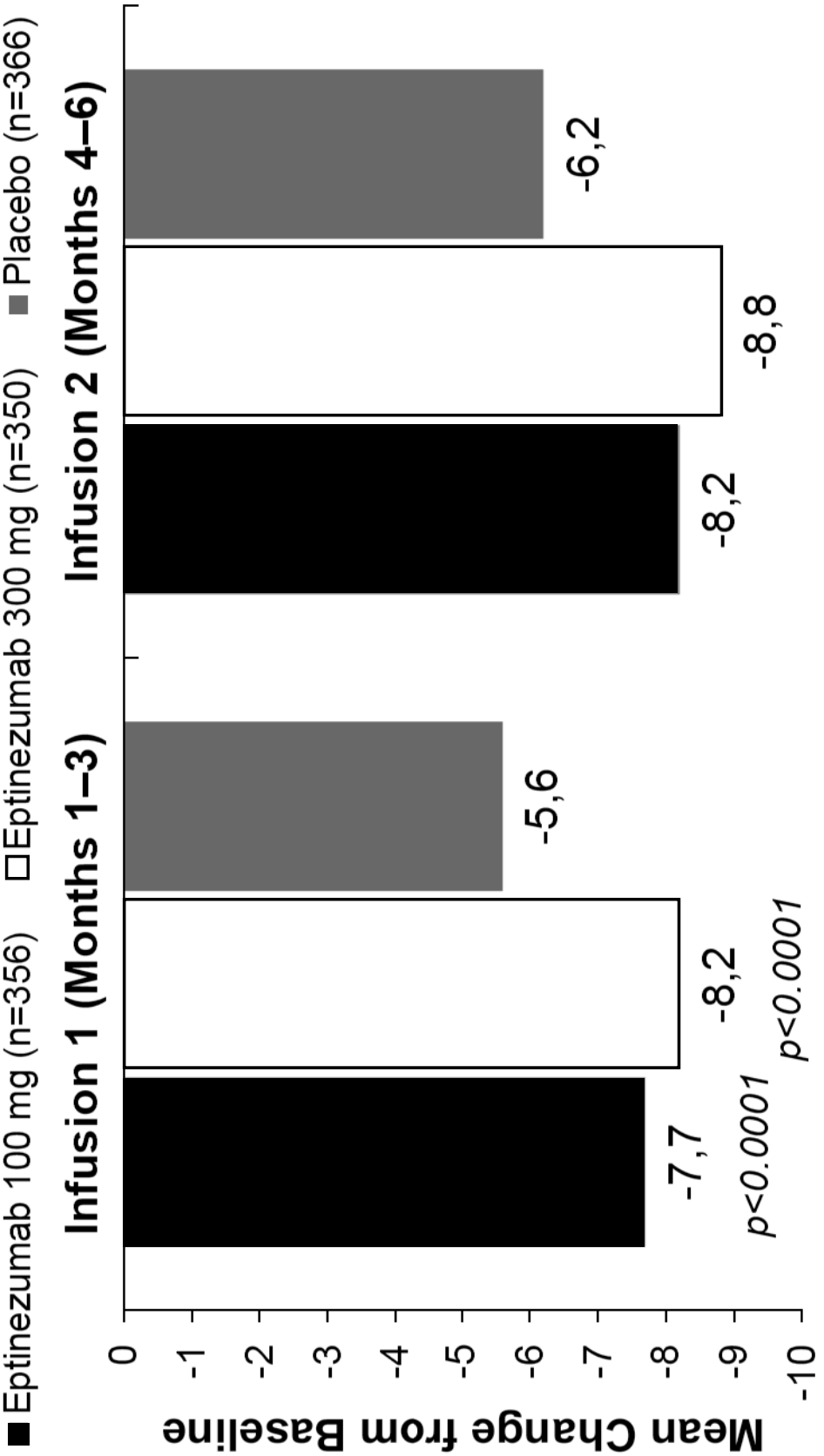
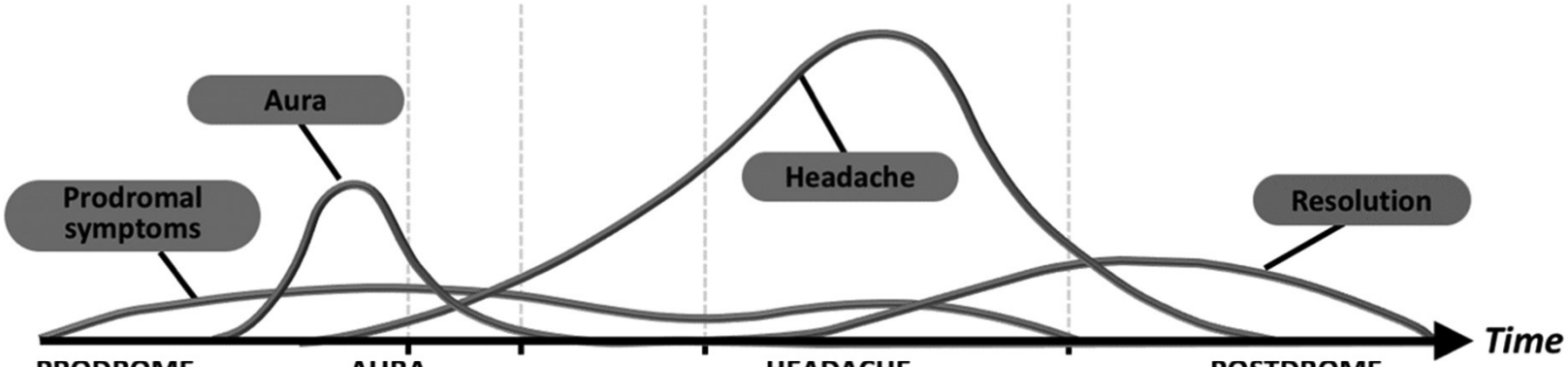


Fig 14 - Mean Monthly migraine days

Fig. 15.—Most Bothersome Symptoms Across the Course of the Migraine



PHASE	PRODROME	AURA	HEADACHE	POSTDROME
TIME COURSE	Few Hours to Days	5 – 60 Minutes	4 – 72 Hours	24 – 48 Hours
SYMPTOMS	Tiredness Irritability Depression / mood changes Yawning Increased need to urinate Food cravings Thirst Sensitivity to light, smell, and sound Problems in concentrating Fatigue Muscle stiffness Difficulty in speaking and reading Nausea Difficulty in sleeping	Visual disturbances Temporary loss of sight Numbness and tingling	Throbbing Drilling Burning Nausea Vomiting Giddiness Insomnia Nasal congestion Anxiety Depressed mood Sensitivity to light, smell, and sound Neck pain and stiffness	Tiredness Inability to concentrate Fatigue Depressed mood Euphoric mood Lack of comprehension

Fig 16 – MBS change from baseline during the 28 day screening period – i.e. before the first infusion of Ab6

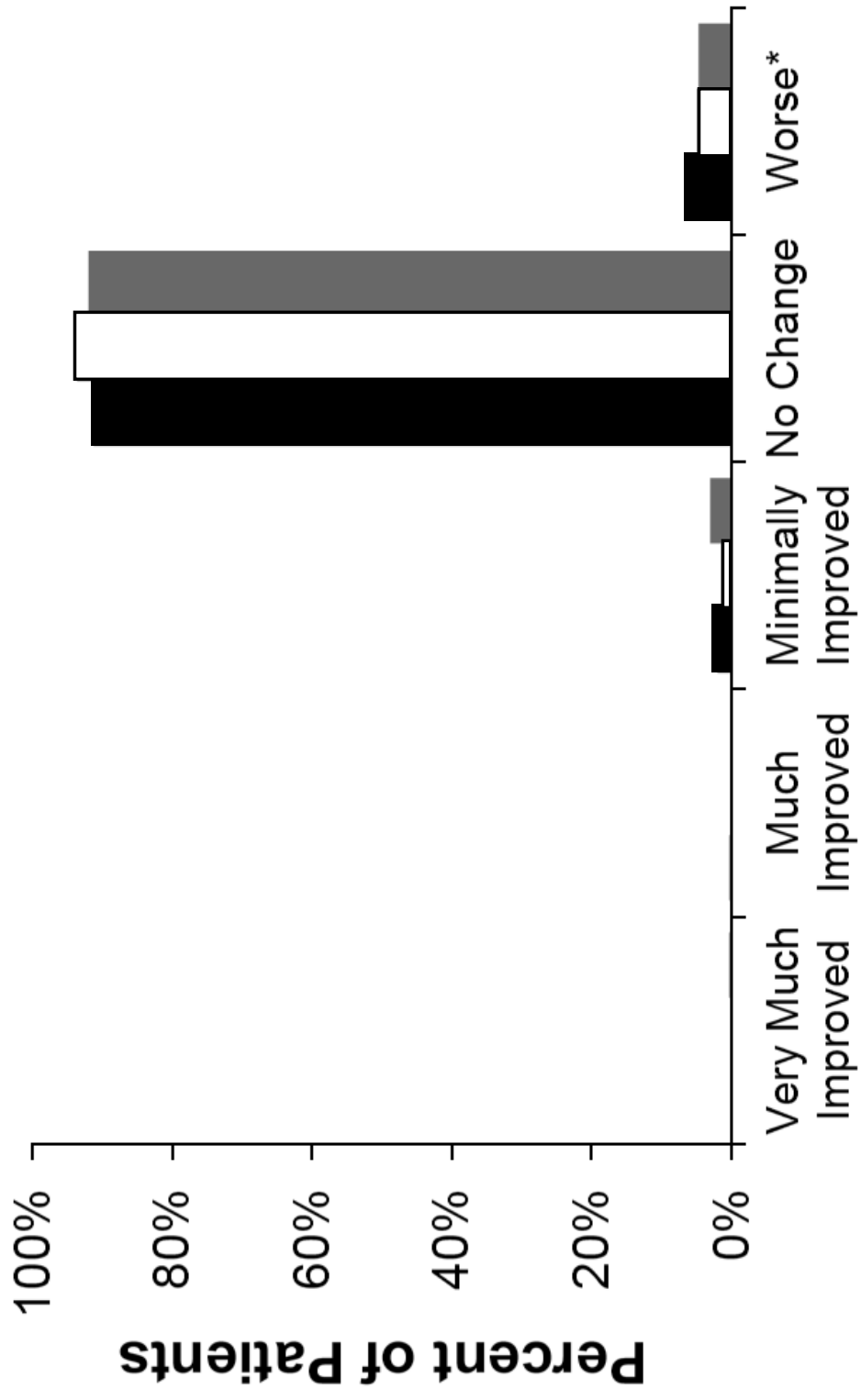


Fig 17 – MBS change from baseline 1 month after first infusion

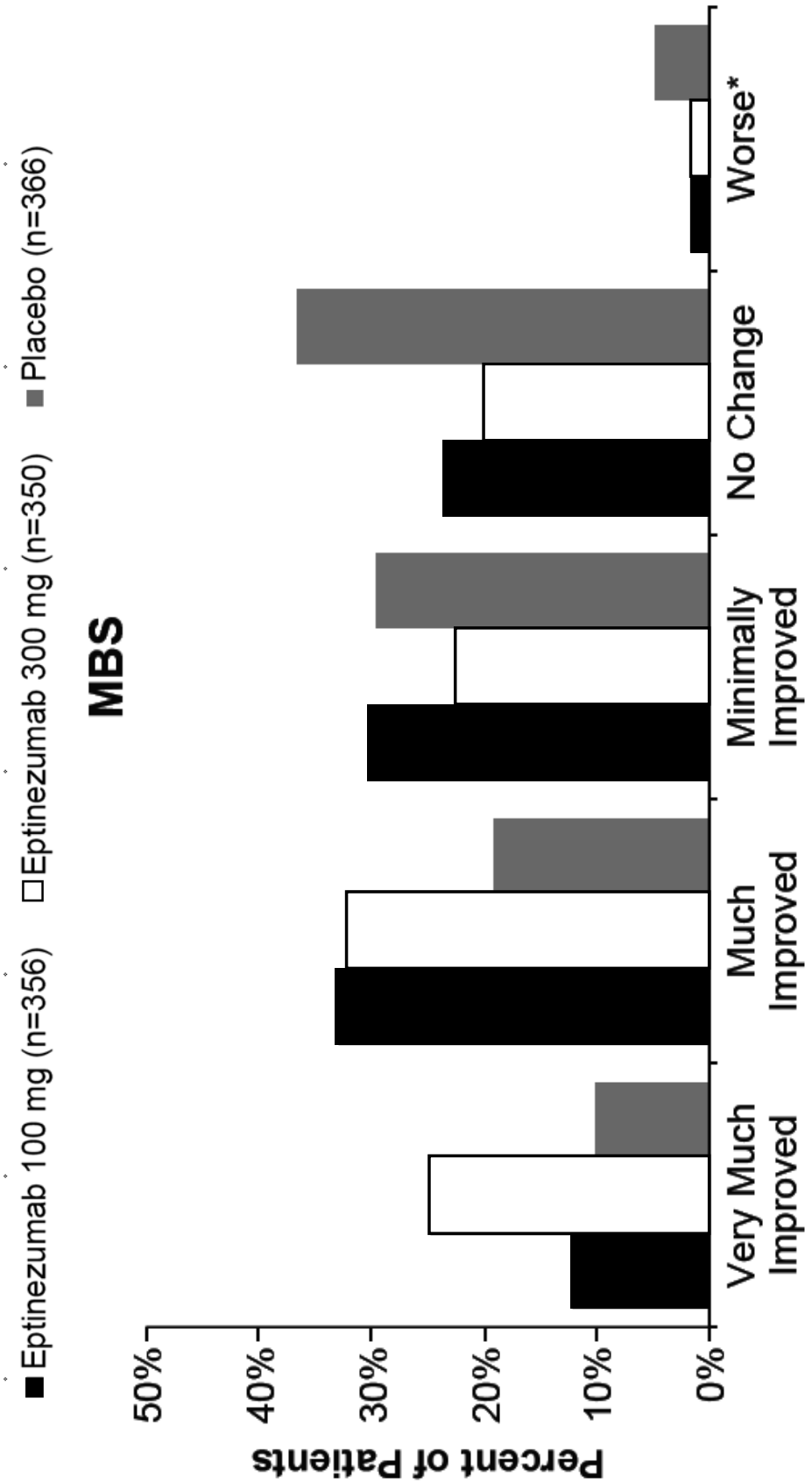


Fig 18 – PGIC from baseline 1 month after first infusion

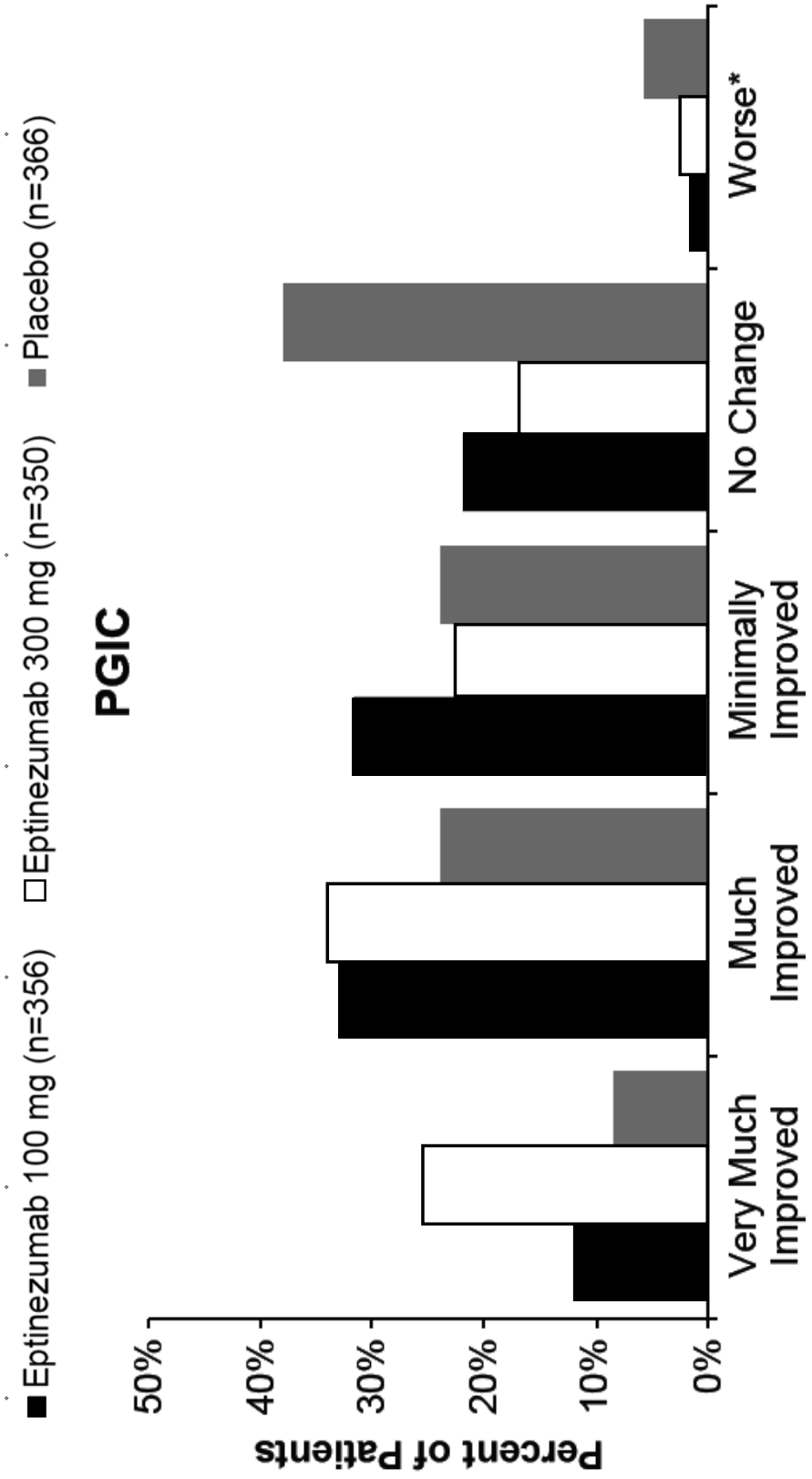


Fig 19 – MBS change from baseline 3 month after first infusion

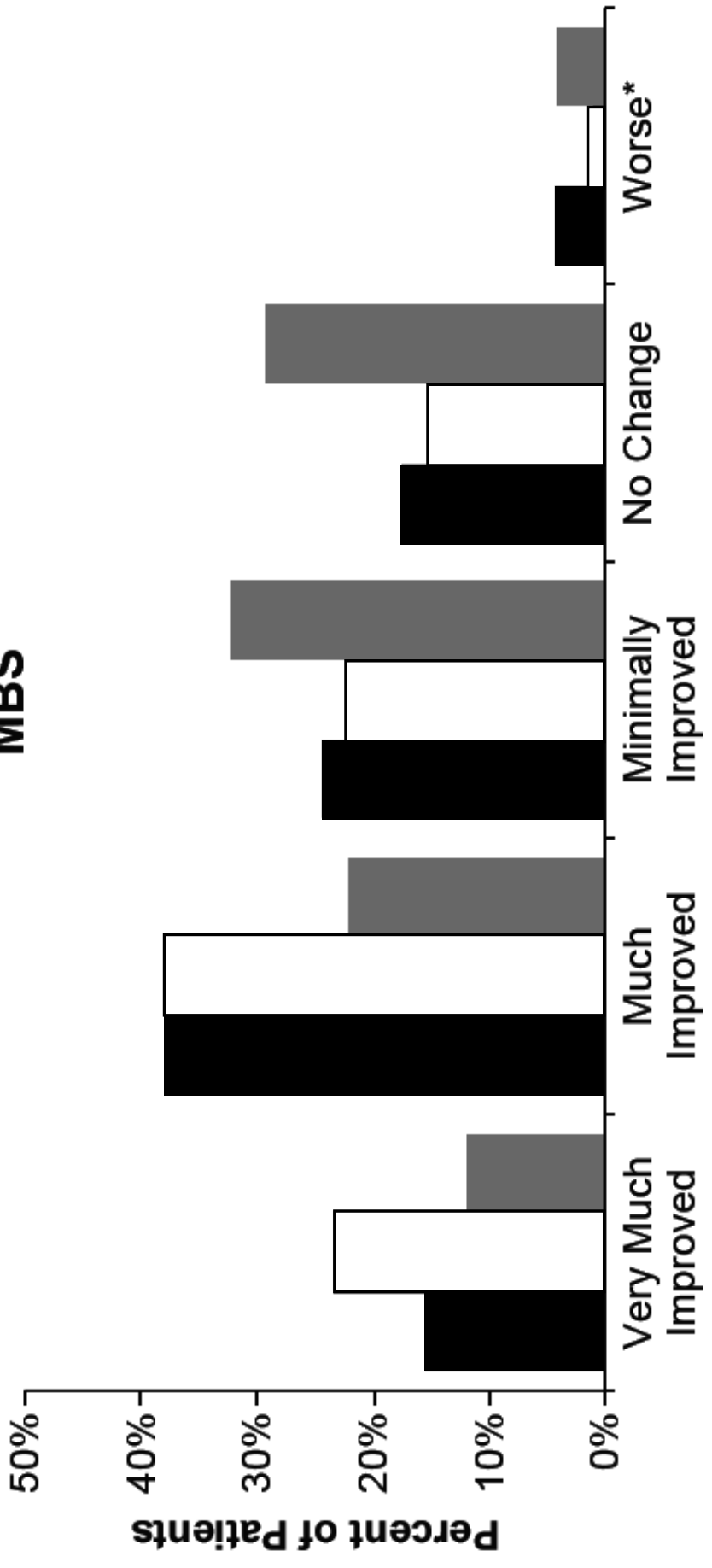


Fig 20 – PGIC from baseline 3 month after first infusion

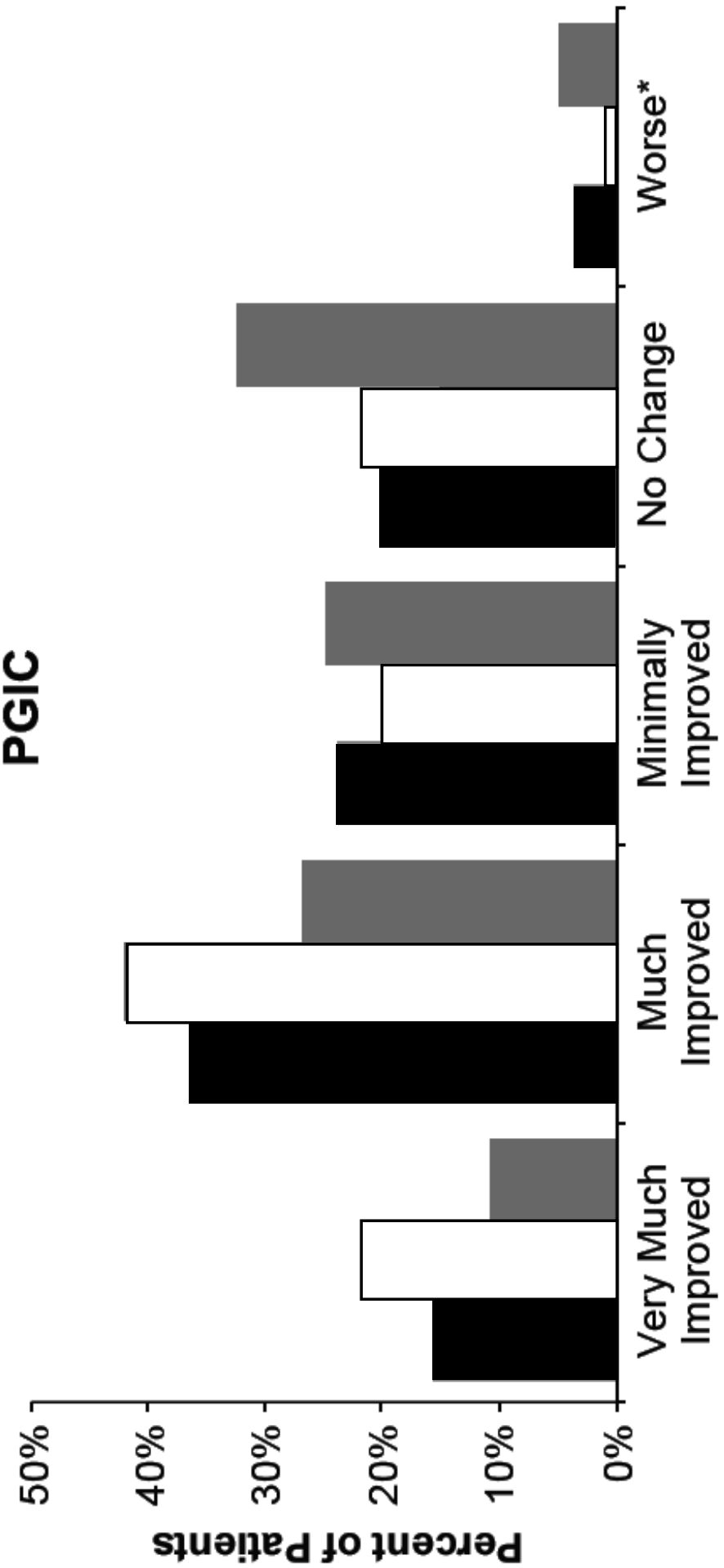


Fig 21 – MBS change from baseline 6 month after first infusion

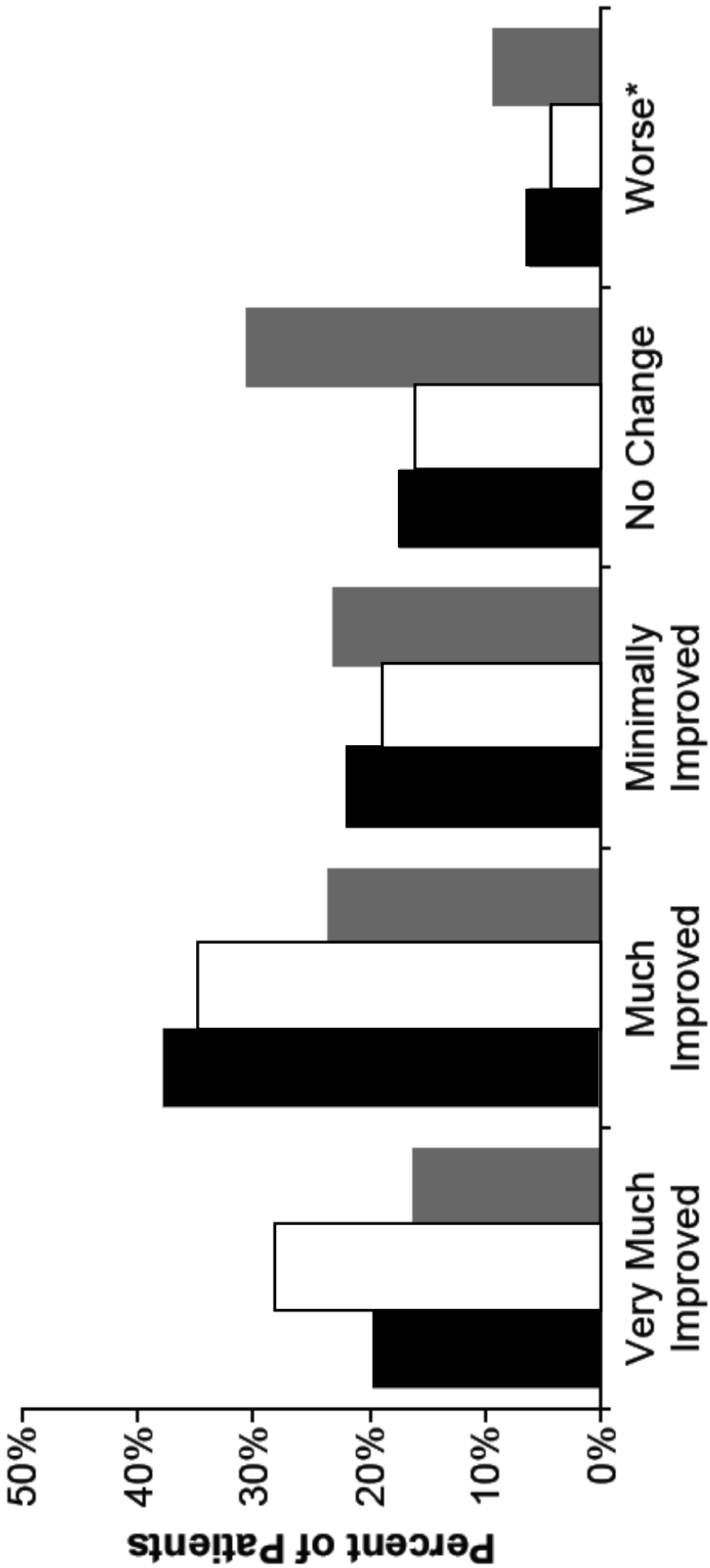


Fig 22 – PGIC from baseline 6 month after first infusion

