220 COST PER RESPONSE FOR ABATACEPT VERSUS ADALIMUMAB IN PATIENTS WITH SEROPOSITIVE EROSIVE, EARLY RHEUMATOID ARTHRITIS IN THE UNITED STATES, GERMANY, SPAIN AND CANADA

Jason Foo[1], José M. R. Rodríguez-Heredia[2], Carlos Polanco Sánchez[3], Mondher Mtibaa[4], Kirsten H. Herrmann[5], Evo Alemao[6], Roelien Postema[6] and Christoph Baerwald[7]
[1]*Real World Strategy & Analytics, Mapi Group, Houten, NETHERLANDS,* [2]*Rheumatology, Hospital Universitario de Getafe, Madrid, SPAIN,* [3]*Health Economics and Outcomes Research, Bristol-Myers Squibb, Madrid, SPAIN,* [4]*Health Economics and Outcomes Research, Bristol-Myers Squibb, Montreal, QC, CANADA,* [5]*Health Economics and Outcomes Research, Bristol-Myers Squibb, Munich, GERMANY,* [6]*Health Economics and Outcomes Research, Bristol-Myers Squibb, Princeton, NJ, USA, and* [7]*Rheumatology Unit, Department of Internal Medicine, University Hospital, Leipzig, GERMANY*

220 TABLE 1: Incremental monthly costs per health gain across all countries

		US	Germany	Spain	Canada			US	Germany	Spain	Canada
		Difference in costs per outcome (abatacept minus adalimumab)						Difference in costs per outcome (abatacept minus adalimumab)			
Monthly cost per responding patient - erosive early RA	ACR20	-$918	-€1028	-€543	-$409	**Monthly cost per responding patient - non-erosive early RA**	ACR20	$318	-€425	-€189	$128
	ACR50	-$1352	-€1433	-€761	-$600		ACR50	$790	-€394	-€152	$324
	ACR70	-$4175	-€3047	-€1670	-$1807		ACR70	$16	-€1120	-€538	-$1
	ACR90	-$124,174	-€64,749	-€36,921	-$52,867		ACR90	-$15,349	-€9666	-€5371	-$6401
	HAQ-DI	-$363	-€870	-€443	-$178		HAQ-DI	-$629	-€934	-€478	-$266
Monthly cost per remission - erosive early RA	DAS28	$622	-€374	-€159	$241	**Monthly cost per remission - non-erosive early RA**	DAS28	$516	-€435	-€185	$210
	CDAI	-$8015	-€5047	-€2810	-$3442		CDAI	$318	-€925	-€430	$125
	SDAI	-$8015	-€5047	-€2810	-$3442		SDAI	$1533	-€373	-€106	$630

Background: RA is a chronic, inflammatory disorder leading to disability and reduced quality of life. Effective treatment with biologic DMARDs poses a significant economic burden. The AMPLE trial was a head-to-head, randomised study comparing SC abatacept with SC adalimumab. A recent *post hoc* analysis showed improved efficacy for abatacept in patients with seropositive, erosive early RA (defined as: disease duration $\leq$6 months, RF or anti-citrullinated protein antibody seropositivity and $>$1 radiographic erosion) compared with adalimumab.

Methods: A previously published decision tree was used to compare the cost per response of abatacept and adalimumab in a cohort of 1000 patients over a 2-year time horizon. Clinical inputs were based on a *post hoc* analysis of the AMPLE trial in patients with or without seropositive, erosive early RA. Response was based on ACR20/50/70/90 and HAQ-DI. Unit costs for direct medical costs of AEs were based on local tariffs for disease-related groups and the ex-manufacturer price, including mandatory reductions, pay-back and transparent discounts for drugs.

Results: The cost per response in patients with seropositive, erosive early RA favoured SC abatacept compared with SC adalimumab for ACR20, ACR50, ACR70, ACR90 and HAQ-DI across all countries (Table). Cost per ACR90 and HAQ-DI response consistently favoured SC abatacept in patients with or without seropositive, erosive early RA in all countries. The cost per CDAI and SDAI remission also favoured SC abatacept in patients with seropositive, erosive early RA in all countries; however, the cost per DAS28 remission favoured SC adalimumab in the US and Canada. Results in patients without seropositive, erosive early RA were less consistent for SC abatacept, except in Germany and Spain, where the cost of abatacept is lower than the cost of adalimumab.

Conclusion: The cost per responder favoured SC abatacept in patients with seropositive, erosive early RA. Cost savings can be achieved through the use of abatacept over adalimumab in patients with early, rapidly progressing RA in the US, Germany, Spain and Canada. This abstract was first presented at the ACR Congress, 4-8 November 2017, San Diego, CA, USA (abstract 1465) and published in *Arthritis Rheumatol* 2017;69(Suppl 10).

Disclosures: J.F. consultancies; Bristol-Myers Squibb. C.P.S., M.M., K.H.H. E.A. and R.P. are employees of Bristol-Myers Squibb and have stocks/shares. C.B. consultancies; AbbVie, Bristol-Myers Squibb, Chugai, MSD, Pfizer, Roche, UCB. Member of speakers' bureau; AbbVie, Bristol-Myers Squibb, Chugai, MSD, Pfizer, Roche, UCB. J.M.R.R-H. has declared no conflicts of interest.