

Short Study Report to Authorities

Name of Sponsor/Company: EORTC	Individual study Table Referring to Part of the Dossier	<i>(For National Authority Use Only)</i>
Name of the finished product	Caspofungin	
Name of Active Ingredient	Caspofungin acetate	
Title of the Study	A multicenter, Open, Phase II Study to Estimate the activity and safety of Caspofungin (CASP) in the First-line Treatment of probable and proven Invasive Aspergillosis (IA) in Patients with Hematological Malignances (HM) or recipients of autologous Haematopoietic Stem Cell Transplantation and those with allogeneic Haematopoietic Stem Cell Transplantation (HSCT) – EORTC 65041	
Investigators & Study Centers	➤ See appendix below	
Publication (reference)	<p>List here any existing reference for the presentation of the study results. If the final publication is not yet out, please list here any abstracts or formal presentations with the statement</p> <p>The overall study data have not been published yet, however, publications about part of the data were presented at several conferences:</p> <p>Group A (HM or autologous HSCT)</p> <p>TIMM 2007, Viscoli, C., Herbrecht, R., Akan, H., Baila, L., Doyen, C., Gallamini, A., Giagounidis, A., Marchetti, O., Martino, R., Meerts, L., Paesmans, M., Shivaprakash, M., Ullmann, A.J., Maertens, J.: Caspofungin (C) as first-line therapy of invasive aspergillosis (IA) in haematological patients (pts): a study of the EORTC Infectious Diseases Group</p> <p>ECCMID 2008, J. Maertens, R. Herbrecht, H. Akan, L. Baila, C. Doyen, A. Gallamini, A. Giagounidis, O. Marchetti, R. Martino, L. Meert, M. Paesmans, L. Ameye, M. Shivaprakash, A. Ullmann, C. Viscoli for the Infectious Diseases Group of the EORTC: Caspofungin as first-line therapy of invasive aspergillosis in haematological patients - impact of baseline characteristics on response rate at end of treatment and survival</p> <p>Group B (allogeneic HSCT)</p> <p>ICAAC 2008, R. Herbrecht, J. Maertens, L. Baila, M. Aoun, W.J. Heinz, R. Martino, S. Schwartz, A. Ullmann, L. Meert, M. Paesmans, L. Ameye, M. Shivaprakash, C. Viscoli: Caspofungin (C) as First-Line Therapy of Invasive Aspergillosis (IA) in Allogeneic Hematopoietic Stem Cell Transplant (HSCT) Recipients: a Study of the EORTC Infectious Diseases</p>	

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	Group	
Objective(s)	<p>➤ <i>The following parts are available from the Study Protocol Summary</i></p> <p>The primary objective of this trial was to estimate the activity of caspofungin as first line therapy in the treatment of invasive aspergillosis in patients with haematological malignancies (HM)/autologous Hematopoietic Stem Cell Transplantation (HSCT) – group A – and patients with allogeneic HSCT transplantation – group B. The activity of caspofungin was assessed separately in these two groups of patients since response rates and survival differ substantially in these two patient populations.</p>	
Methodology	<p><i>The trial was designed as a single arm multicentric phase II trial in a population of patients with proven or probable invasive aspergillosis according to EORTC-MSG criteria.</i></p>	
Number of patients Number planed (Statistical design) Number analyzed	<p>This is a one stage Fleming design with two groups of patients.</p> <p>Group A (HM, autologous HSCT): Based on significance level of 0.10 and 95% power to detect an effective therapy if the true response rate was at least 55% (null hypothesis: true response rate $\leq 35\%$), this therapy would be recommended for further investigation if at least 23 out of 52 eligible patients had a response (estimated 87 registered patients). The analyzed number of patients was 61 in the MITT population and 54 in the PP population.</p> <p>Group B (allogeneic HSCT): Based on a significance level of 0.10 and 95% power to detect an effective therapy if the true response rate was at least 33% (null hypothesis: true response rate $\leq 13\%$), this therapy would be recommended for further investigation if at least 8 out of 37 eligible patients had a response (estimated 62 registered patients). The trial was stopped prematurely due to low accrual, with 42 patients registered and 24 patients analyzed in the MITT=PP population.</p>	
Diagnosis and main criteria for inclusion	<p>Patients were eligible if at least 18 years old, with HM or auto-HSCT (group A) or allo-HSCT (group B) and with a diagnosis of proven or probable IA, according to the EORTC-MSG criteria. Patients with possible IA were registered, but investigator had 7 days to upgrade them to proven or probable IA based on culture or serological tests performed prior to or</p>	

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	within 48 hours after registration but with pending results. These included culture and/or histology results and Aspergillus galactomannan evaluations. Caspofungin treatment was stopped in the patients who were not upgraded, these patients were assessed for safety only.	

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Treatment Test product, dose and mode of administration (batch number if applicable) Duration of treatment	All patients enrolled received a 70mg loading dose of caspofungin on day 1, followed thereafter by 50mg/day up for at least 15 days (or until failure) to a maximum duration of therapy of 84 days. Dose modifications were made for patients with body weight > 80kg (70mg/day), moderate hepatic failure (following 70mg loading dose, 35mg/day), and concomitant administration of liver inducers able to influence caspofungin concentrations. Minimal treatment duration was planned to be 15 days unless an adequate reason to stop early was present (toxicity, clear progression, death, ...) and otherwise to be continued up to 84 days in patients with response or stable disease.	
Reference therapy, dose and mode of administration (batch number if applicable)	Not applicable	
Criteria for evaluation Efficacy Safety	Response was assessed using Recist criteria in a modified intent to treat population (MITT). <i>Safety was graded according to the CTCAE version 3 in all patients who started therapy with caspofungin.</i>	
Statistical methods	In both strata, the primary endpoint was the proportion of MITT patients with complete or partial response to treatment at end of therapy (EOT). The secondary endpoints were response to treatment and survival at day 84 after enrollment, and safety, as defined by proportion of drug-related adverse events, serious drug-related adverse events, and drug-related adverse events leading to treatment discontinuation. Fisher's exact test	

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	<p>was used to test the statistical significance of differences in discrete data and Mann-Whitney’s test to compare continuous variables such as Karnofsky score. A p value <0.05 was considered statistically significant. As most of the deaths attributable to IA occur by day 84, the binary survival status at day 84 was considered as an endpoint and logistic regression models were constructed to determine baseline characteristics independently related to survival at day 84 (stepwise forward selection of variables was used).</p>	
Summary of Results Efficacy Results	<p>➤ <i>The contents of this section should be prepared on the basis of the section “Summary of Results” from the Final Analysis Report. It may however be less extensive than that chapter from the FAR study summary.</i></p> <p>Group A: Median duration of caspofungin treatment was 15 days. In the MITT group (N=61) at EOT, 1 and 19 patients had complete and partial response, respectively [success rate 33% (20/61)], 9 (15%) achieved stabilization and 31 (51%) had disease progression. One patients was not evaluable. The 6 and 12-weeks survival rates were 66% (40/61) and 53% (32/60).</p> <p>Group B: Median duration of caspofungin treatment was 24 days. In the MITT = PP group (N=24) at EOT, 10 patients had a complete or partial response [success rate 42% (10/24)], 1(4%) stable disease and 12 (50%) disease progression. The 6 and 12-weeks survival rates wee 79% (19/24) and 50% (12/24).</p>	
Safety Results	<p>Group A: Caspofungin was well tolerated with no serious drug-related adverse events or discontinuation due to drug-related adverse events.</p> <p>Group B: Caspofungin was well tolerated with no serious drug-related adverse events or discontinuation due to drug-related adverse events.</p>	

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Conclusions	Group A: The response rate of 33% (30/61) was compatible with the null hypothesis of a true response rate $\leq 35\%$. Group B: The response rate of 42% (10/24) was compatible with a true response rate of at least 33% and the drug should be recommended for further investigation.	
Date of Report & version	<i>Apr 30, 2010</i> <i>Version 1.0</i>	

Table Investigators and study centers

Investigator Name	Investigator First Name	Inst Number	Institution	Address	City	Country	Recruitment
Selleslag	Dominik	109	A.Z. St. Jan	Ruddershove 10	8000 Brugge	BE Belgium	10
Aoun	Mickael	101	Institut Jules Bordet	Rue Heger-Bordet, 1	1000 Brussels	BE Belgium	28
Frere	Pascale	155	C.H.U. Sart-Tilman	Domaine Universitaire du Sart-Tilman	4000 Liege 1	BE Belgium	1
Maertens	Johan	147	U.Z. Gasthuisberg	Herestraat 49	3000 Leuven	BE Belgium	25
Doyen	Chantal	123	Cliniques universitaires de Mont Godinne	Avenue G. Therasse, 1	BE 5530 Yvoir	BE Belgium	27
Cornely	Oliver	508	Universitaetskliniken Koeln	Kerpener Strasse 62	50924 Koeln	DE Germany	6
Thiel	Eckhard	523	Charite - Universitaetsmedizin Berlin - Campus Benjamin Franklin	Hindenburgdamm 30	12200 Berlin	DE Germany	5
Ruhnke	Markus	198	Charite - Universitaetsmedizin Berlin - Campus Mitte	Chariteplatz 1	10117 Berlin	DE Germany	2
Heinz	Werner	3042	Medizinische Poliklinik Der Universitaet Wuerzburg	Klinikstrasse 6-8	97070 Wuerzburg	DE Germany	6
Ullmann	A.J.	502	Johannes Gutenberg	Langenbeckstrasse 1	55101 Mainz	DE Germany	6

			Universitaetskliniken				
Giagounidis	Aristoteles	545	ST. JOHANNES HOSPITAL - MEDIZ.KLINIK II	An der Abtei 7-11	DE 47166 Duisburg	DE Germany	15
Martino	Rodrigo	379	Hospital De La Santa Creu I Sant Pau	Av. San Antonio M. Claret 167	08025 Barcelona	ES Spain	4
Ribaud	Patricia	192	Hopital Saint-Louis (AP-HP)	1, avenue Claude Vellefaux	75475 Paris CEDEX 10	FR France	0
Cordonnier	Catherine	201	C.H.U. Henri Mondor AP-HP	51, av. Marechal de Latre de Tassigny	94010 Creteil	FR France	0
Herbrecht	Raoul	240	Hopital Universitaire Hautepierre	Rue Moliere	67098 Strasbourg	FR France	12
Thiebaut	Anne	242	CHU Lyon - Hopital Edouard Herriot	5, place d'Arsonval	69437 Lyon CEDEX 03	FR France	2
Kibbler	Chris C.	598	Royal Free Hospital	Pond Street, Hampstead	London NW3 2QG	GB United Kingdom	1
Van Lint	Maria Teresa	690	Azienda Ospedaliera Universitaria San Martino	Largo Rosanna Benzi, 10	16132 Genova	IT Italy	0
Gallamini	Andrea	859	Ospedale Santa Croce	Via M. Coppino, 26	12100 Cuneo	IT Italy	7
Pagano	Livio	777	Policlinico A. Gemelli - Universita Del Sacro Cuore	Largo Agostino Gemelli 8	00168 Roma	IT Italy	1
Donnelly	Peter	304	Radboud University Nijmegen Medical Centre	P.O. Box 9101 - Geert Grooteplein 10	6500 HB Nijmegen	NL The Netherlands	5
Botelho De Sousa	Aida	5903	HOSPITAL DOS CAPUCHOS - CENTRO HOSPITALAR DE LISBOA	Alameda Santo Antonio Dos Capuchos	PT 1000 Lisboa	PT Portugal	4
Akan	Hamdi	8972	Ankara University School Of Medicine - Cebeci Campus	Cebeci	06590 Ankara	TR Turkey	4
Korten	Volkan	971	MARMARA UNIVERSITY HOSPITAL	Tophanelioglu Cad 13/15, Kosyolu	TR 34462 Istanbul	TR Turkey	1
Total							172