Clinical Study Synopsis

This Clinical Study Synopsis is provided for patients and healthcare professionals to increase the transparency of Bayer's clinical research. This document is not intended to replace the advice of a healthcare professional and should not be considered as a recommendation. Patients should always seek medical advice before making any decisions on their treatment. Healthcare Professionals should always refer to the specific labelling information approved for the patient's country or region. Data in this document or on the related website should not be considered as prescribing advice.
The study listed may include approved and non-approved formulations or treatment regimens. Data may differ from published or presented data and are a reflection of the limited information provided here. The results from a single trial need to be considered in the context of the totality of the available clinical research results for a drug. The results from a single study may not reflect the overall results for a drug.

Bayer HealthCare

Clinical Trial Results Synopsis

Study Design Description		
Study Sponsor:	Bayer HealthCare Pharmaceuticals Inc.	
Study Number:	11354	NCT00329628
Study Phase:	III	
Official Study Title:	**RECORD 1 Study**: **RE**gulation of **C**oagulation in **OR**thopedic Surgery to prevent **D**VT and PE, controlled, double-blind, randomized study of BAY 59-7939 in the extended prevention of VTE in patients undergoing elective total hip replacement	
Therapeutic Area:	Cardiology/Coagulation	
Test Product		
Name of Test Product:	Rivaroxaban (Xarelto, BAY59-7939)	
Name of Active Ingredient:	Rivaroxaban	
Dose and Mode of Administration:	• Rivaroxaban (BAY 59-7939) 10 mg once daily (od) administered as 10 mg tablets, oral administration. • BAY 59-7939 placebo tablets, oral administration. • Intake of BAY 59-7939 active or placebo started on the day of surgery (Day 1) 6 to 8 h after wound closure and thereafter once daily until Day 35 (the day before venography).	
Reference Therapy/Placebo		
Reference Therapy:	Enoxaparin	
Dose and Mode of Administration:	• Enoxaparin 40 mg od administered as subcutaneous injection provided as Clexane® 0.4 mL prefilled syringes (Aventis Pharma Deutschland GmbH, D-65926 Frankfurt am Main, Germany) (Lovenox® for US centers [Sanofi-Aventis U.S., LLC, Bridgewater NJ 08807, USA]) containing 40 mg enoxaparin sodium (corresponding to 4000 IU anti-Xa). • Enoxaparin placebo od administered as subcutaneous injection provided as prefilled syringes. • Enoxaparin active or placebo was administered in the evening prior to surgery according to hospital routine. Subsequently, enoxaparin active or placebo was administered on the day of surgery 6 to 8 h after wound closure and thereafter once daily until Day 35 (the day before venography).	
Duration of Treatment:	35 ± 4 days	
Studied period:	Date of first subjects' first visit:	07 FEB 2006
	Date of last subjects' last visit:	13 MAR 2007
Premature Study Suspension / Termination:	No	

Substantial Study Protocol Amendments:	Amendment no. 1 (dated 02 MAR 2006) was applicable to all participating countries and specified the changes requested by health authorities. The changes were: • Adjudication by the Adjudication Committee (AC)/venous thromboembolic events (VTE) refers to all symptomatic deep vein thrombosis (DVT) during treatment and follow-up. • Addition of "significant liver disease (e.g., acute clinical hepatitis), chronic active hepatitis, cirrhosis" to the list of the exclusion criteria. • Elaboration on stopping rules related to liver function. • Addition of "net clinical benefit" assessed by the composite endpoint comprising major VTEs and treatment-emergent major bleeding as a secondary efficacy endpoint. • Addition of "incidence of surgical site bleedings associated with ≥2 g/dL fall in hemoglobin or leading to infusion of ≥2 units of whole blood or packed cells" as a safety variable. • Addition of retention samples for human immunodeficiency virus (HIV)-, hepatitis A-, B-, and C-serology at baseline. • Change of assessment from Day 7 ± 2 day to Day 6 ± 2 day. • Addition of direct and indirect bilirubin to list of clinical chemistry parameters. • Adjustment of liver enzyme monitoring. • Introduction of univariate comparison by 2-way analysis of variance to check treatment group comparability. • Introduction of the "modified intent-to-treat (mITT)" population for efficacy analysis according to ICH-E9 Guideline. • The primary efficacy analysis was to be performed in the per protocol (PP) population instead of the intent-to-treat (ITT) population. In addition, the supportive efficacy analysis was to be performed in the mITT analysis instead of the PP analysis. New assumptions were made for the non-inferiority testing.
Study Centre(s):	The study was conducted in 218 centers in 27 countries (number of centers in parentheses): Argentina (7), Australia (5), Austria (8), Belgium (10), Brazil (4), Canada (9), Chile (2), Colombia (3), Czech Republic (10), Denmark (5), Germany (18), Finland (3), France (13), Greece (3), Hungary (9), Israel (8), Italy (21), Lithuania (2), the Netherlands (7), Norway (5), Poland (19), Sweden (6), Slovakia (3), Spain (16), South Africa (3), Turkey (5), and USA (14).
Methodology:	This was a prospective study with a double-dummy, parallel-group design. The efficacy and safety parameters of primary interest were centrally adjudicated by Adjudication Committees. The study consisted of screening and randomization period (performed on day 0), surgery (day 1), a treatment period (days 0 through 35 ± 4), a bilateral ascending venography (day 36 ± 4), and a follow-up period (30 days [+ 5 days] after the last treatment with study drug). The time window for bilateral venography was eventually widened to day 36 ± 6. The total duration of each subject's participation was up to 71 days. No further study medication was administered after venography. Subjects were to have follow-up visits 30 days (+ 5 days timeframe) after the last treatment with study drug.

Indication/ Main Inclusion Criteria:	Indication: Prevention of venous thromboembolism Main Inclusion criteria • Men and women ≥18 years of age • Subjects undergoing elective total hip replacement
Study Objectives:	Overall: To assess the efficacy and safety of rivaroxaban 10 mg oral once daily dosing compared with once daily subcutaneously administered enoxaparin 40 mg in extended prevention of VTE in male and female subjects aged 18 years or above undergoing elective total hip replacement.
Evaluation Criteria:	Efficacy (Primary): The primary efficacy endpoint was a composite endpoint of: • Any DVT (proximal and/or distal) • Non-fatal pulmonary embolism (PE) • Death from all causes The analysis of the primary efficacy endpoint was solely based on the assessments made by the venography and VTE Adjudication Committees. Efficacy (Secondary): Secondary efficacy endpoints were: • Major VTE (proximal DVT, non-fatal PE, VTE-related death) as main secondary endpoint • Incidence of DVT (total, proximal, distal) • Incidence of symptomatic VTE (DVT, PE) • Incidence of symptomatic VTE during follow-up (i.e., after the end of the time window for primary efficacy assessment) • "Net clinical benefit" assessed by the composite endpoint comprising major VTE and treatment-emergent major bleeding • Incidence of the composite endpoint that results from the primary endpoint by substituting VTE-related death for all death (composite of any DVT and non-fatal PE and VTE-related death) • Incidence of the composite endpoint that results from major VTE by substituting all-cause mortality for VTE-related death (composite of proximal DVT and non-fatal PE and death from all causes The analyses of the secondary efficacy endpoints related to VTE were solely based on the assessments made by the Venography, VTE, and Bleeding Event Adjudication Committees. A further study endpoint was health care resource utilization, assessed by duration of hospitalization, any re-hospitalization during the entire study period, and rehabilitation center stay following hospital discharge. Safety: The main safety endpoint was the incidence of treatment emergent major bleeding observed not later than 2 days after last intake of study drug. Major bleeding observed after this period was considered separately. The analysis of the primary safety endpoint was solely based on the classification made by the Bleeding Adjudication

	Committee. Adverse events (AEs) that started more than 2 days after the last intake of study drug were not considered to be "treatment-emergent". Other safety variables included: • Incidence of any treatment-emergent bleeding observed not later than 2 days after last intake of study drug • Incidence of non-major treatment-emergent bleeding observed not later than 2 days after last intake of study drug • Incidence of (any, non-major, major) post-operative bleeding (Note: The post-operative period started 6 h after end of surgery [or with the first post-operative intake of study medication, whichever came first] and ended 2 days after the last intake of study medication • Incidence of surgical site bleedings associated with ≥ 2 g/dL fall in hemoglobin or leading to infusion of ≥ 2 units of whole blood or packed cells • Treatment-emergent AEs • Treatment-emergent serious AEs • Deaths • AEs starting more than 2 days after stop of treatment • Adjudicated cardiovascular events (on treatment/off treatment) • Incidence of (prolonged) hospitalization • Transfusion requirements • Discontinuations due to AEs • Amount of intra-operative blood loss • Post-operative volume in drainage • Laboratory parameters
Statistical Methods:	Population: A subject was considered valid for mITT analysis if the subject was (1) valid for safety analysis; (2) had undergone the appropriate surgery; and (3) had an adequate assessment of thromboembolism. The PP population was to include subjects who were (1) valid for the mITT analysis; (2) had an adequate assessment of thromboembolism that, in case of a positive finding, was done not later than 36 h after stop of active study drug, in case of no finding, was done not later than 72 h after the end of active study drug; and (3) had no major protocol deviations. The safety population comprised those subjects who received at least 1 dose of study drug. Efficacy (Primary): For the primary efficacy variable, the PP population was the primary population used for the test for non-inferiority of rivaroxaban as compared to enoxaparin and the mITT population was the primary population used for the test for superiority of rivaroxaban as compared to enoxaparin. For the primary efficacy endpoint, the difference between treatments with respect to the incidence rate, was estimated and the corresponding asymptotic 2-sided 95% confidence interval (CI) was calculated. For non-inferiority testing, the hypothesis of relevant inferiority was rejected in favor of non-inferiority if the upper limit of the 95% CI for the treatment difference was below the pre-specified non-inferiority limit of 3.5% (absolute). If non-inferiority had been met in the PP population, a superiority test was performed based on the mITT population; the hypothesis of equality was rejected in favor of superiority if the upper limit of the 95% CI determined for the treatment difference (with respect to the incidence) was below 0.

	Efficacy (Secondary): For major VTE, the major secondary endpoint, a superiority test was preceded by a non-inferiority test based on a non-inferiority limit of 1.5%. The incidence of the secondary efficacy endpoints was evaluated by estimating the difference in the incidence between treatment groups and calculating corresponding CIs. Safety: The safety analysis was performed in the population of subjects valid for safety analysis. For the incidence of major bleeding, between-treatment differences were estimated and the corresponding 2-sided 95% CI was calculated. The incidences of any bleeding, non-major bleeding, and treatment-emergent AEs were tabulated and stratified by treatment group.
Number of Subjects:	A total of 4541 subjects were randomized at 218 study centers. Subjects treated with study medication (safety population) were 4433, and of these, 3153 were valid for the mITT analysis, 3029 were valid for the PP analysis.

Study Results

Results Summary — Subject Disposition and Baseline

The results were similar across the safety, MITT and PP populations. In the safety population, 56% of the subjects were female and the majority of subjects were White (92%). Subjects had a mean age of 63.2 years (range 18.0 to 93.0), and a mean body mass index (BMI) of 27.9 Kg/m^2 (range 15.2 to 53.4). Homogeneity testing showed no differences between the PP, MITT, and safety populations. The 2 exceptions were age and alcohol consumption, which showed statistically significant differences between populations; however, these differences were too small to be important.

Results Summary — Efficacy

- Efficacy data were obtained from 3029 (PP analysis) of the 4541 randomized subjects. Based on the non-inferiority margin of 3.5%, results for the composite primary efficacy endpoint (composite endpoint I) demonstrated that the objective of non-inferiority against enoxaparin was met and that rivaroxaban was at least as effective as enoxaparin in preventing VTE.

- In 3153 subjects valid for mITT analysis, the composite primary efficacy endpoint (composite endpoint I) outcome occurred in 18 (1.1%) and 58 (3.7%) of subjects randomized to rivaroxaban or enoxaparin, respectively; a statistically significant difference (P<0.001). This finding demonstrated the superiority (95% CI: -3.69%, -1.54%) of rivaroxaban over enoxaparin in preventing VTE.

- Most components of the primary composite efficacy endpoint were numerically reduced in the presence of rivaroxaban compared with enoxaparin, including proximal DVT 1 vs 31 (<0.1% vs 2.0%), distal DVT 12 vs 27 (0.8% vs 1.7%), VTE-related death 0 vs 1 (0 vs <0.1%), and non-VTE-related death 2 vs 3 (0.1% vs 0.2%) (mITT population). No differences were observed for death of any cause between the 2 treatments (0.3% vs 0.3%). Nonfatal PEs were observed in 4 (0.3%) subjects receiving rivaroxaban compared to 1 (<0.1%) subject in the enoxaparin group. Unexplained death occurred in 2 (0.1%) and 0 (0%) subjects in the rivaroxaban and enoxaparin groups, respectively.

- The relative risk reduction (unweighted relative risks in mITT population) was 69.7% [95% CI: 48.8%; 82.1%] for the primary efficacy endpoint.

- Major VTE (composite endpoint III), the major secondary endpoint, occurred in 4 (0.2%) subjects receiving rivaroxaban 10 mg od compared to 33 (2.0%) subjects receiving enoxaparin 40 mg od thus demonstrating superiority over enoxaparin (*P*<0.001; mITT population).

- For symptomatic VTE, a lower incidence was observed in 6 (0.4%) subjects treated with rivaroxaban 10 mg od compared with 11 (0.7%) subjects receiving enoxaparin 40 mg od (mITT population).

- In the PP and mITT analyses, rivaroxaban was statistically superior to enoxaparin in reducing the incidences of composite endpoint II (VTE-related death, nonfatal PE, and DVT), and composite endpoint IV (proximal DVT, nonfatal PE, and all-cause death).

- Rivaroxaban was statistically superior to enoxaparin in the analysis of net clinical benefit (composite of major VTE and treatment-emergent major bleeding).

- The results of locally reported DVTs and PEs were consistent with the results of the respective adjudicated events.

- Clotting parameters (e.g., prothrombin time (PT), prothrombinase-induced clotting time) were affected as expected by the mode of action.

Table 1 and Table 2 display the incidence and statistical analysis of the primary efficacy endpoint, respectively.

Table 1: Incidence of primary efficacy endpoint and its individual components as assessed by the central adjudication committee (PP and MITT populations)

PP population		
Endpoint/component	Rivaroxaban 10 mg od (N=1537) n (%)	Enoxaparin 40 mg od (N=1492) n (%)
Primary efficacy endpoint		
Any event	13 (0.9)	50 (3.4)
Death (any cause)	1 (<0.1)	2 (0.1)
Nonfatal PE	2 (0.1)	1 (<0.1)
Proximal and/or distal DVT	11 (0.7)	47 (3.2)
Components		
Death (VTE related)	0 (0.0)	1 (<0.1)
Death (not VTE related)	0 (0.0)	1 (<0.1)
Death (unexplained)	1 (<0.1)	0 (0.0)
DVT, proximal	0 (0.0)	27 (1.8)
DVT, distal	11 (0.7)	24 (1.6)
MITT population		
Endpoint/component	Rivaroxaban 10 mg od (N=1595) n (%)	Enoxaparin 40 mg od (N=1558) n (%)
Primary efficacy endpoint		
Any event	18 (1.1)	58 (3.7)
Death (any cause)	4 (0.3)	4 (0.3)
Nonfatal PE	4 (0.3)	1 (<0.1)
Proximal and/or distal DVT	12 (0.8)	53 (3.4)
Components		
Death (VTE related)	0 (0.0)	1 (<0.1)
Death (not VTE related)	2 (0.1)	3 (0.2)
Death (unexplained)	2 (0.1)	0 (0.0)
DVT, proximal	1 (<0.1)	31 (2.0)
DVT, distal	12 (0.8)	27 (1.7)

Table 2: Pair-wise comparisons and 95% confidence intervals for the primary efficacy endpoint as assessed by the central adjudication committee (PP and MITT populations)

Endpoint/ treatment group	Incidence		Mantel-Haenszel-weighted difference to enoxaparin		*P* value [b] H_0: difference = 0%
	Point estimate	95% CI [a]	Point estimate	95% CI [a]	
PP population					
Primary endpoint					
Rivaroxaban 10 mg od	0.9%	[0.5%, 1.4%]	-2.53%	[-3.55%, -1.51%]	<0.00
Enoxaparin 40 mg od	3.4%	[2.5%, 4.4%]			
MITT population					
Primary endpoint					
Rivaroxaban 10 mg od	1.1%	[0.7%, 1.8%]	-2.62%	[-3.69%, -1.54%]	<0.00
Enoxaparin 40 mg od	3.7%	[2.8%, 4.8%]			

Abbreviations: CI=confidence interval; H_0=null hypothesis; MITT=modified intent-to-treat; od=once daily; PP=per protocol;

a Confidence intervals for proportions were calculated using exact methods. Confidence intervals for weighted differences were calculated using asymptotic methods, with weights based upon sample sizes per strata (geographic region).

b *P* values (2-sided) were calculated based on the Mantel-Haenszel-weighted estimator and its variance estimate.

Results Summary — Safety

Of the 4541 randomized subjects, 4433 were exposed to study drug. Results indicated a comparable safety profile of rivaroxaban to enoxaparin. This conclusion is based on the following findings:

- The incidence of treatment-emergent major bleeding events was low in both treatment groups (0.3% rivaroxaban vs <0.1% enoxaparin). There were no fatal bleeding events reported in either group after start of the active study drug.
- The incidence of treatment-emergent major and non-major clinically relevant bleeding events (3.2% rivaroxaban vs 2.5% enoxaparin) as well as all treatment-emergent bleeding events (6.0% rivaroxaban vs 5.9% enoxaparin) was relatively low and similar between the 2 treatment groups.
- There were 10 deaths, 5 (0.2%) in each treatment group.
- The incidence of treatment-emergent AEs (64.0% rivaroxaban vs 64.7% enoxaparin), including those that were considered to be treatment related (12.2% rivaroxaban vs 11.9% enoxaparin), and the incidence of permanent discontinuations due to AEs (3.8% rivaroxaban vs 4.5% enoxaparin) were similar between the 2 treatment groups.
- The incidence of treatment-emergent serious AEs was similar between the 2 treatment groups (6.6% rivaroxaban, 8.1% enoxaparin).
- The incidence of AEs starting >2 days after stop of study drug was similar between the 2 treatment groups (6.7% rivaroxaban, 5.6% enoxaparin).
- The rates of major bleedings and surgical site bleedings associated with a fall in hemoglobin ≥2 g/dL or leading to infusion of ≥2 units whole blood/packed cells, were comparable between treatment groups (1.8% rivaroxaban vs 1.5% enoxaparin).

- The incidence rates of abnormal liver function tests and thrombocytopenia were similar in both treatment groups. The number of subjects in this 35-day study with significant post-operative abnormalities in liver function tests was too small to draw a conclusion regarding any potential effect of either study drug on hepatic function.

Table 3 displays summary of AEs.

Table 3: AE summary (safety population)

Adverse event type	Rivaroxaban 10 mg od (N=2209) n (%)	Enoxaparin 40 mg od (N=2224) n (%)
Any adverse event or death	1453 (65.8)	1471 (66.1)
Any adverse event	1453 (65.8)	1471 (66.1)
Any serious adverse event	168 (7.6)	200 (9.0)
Any death	5 (0.2)	5 (0.2)
Any treatment-emergent event	1413 (64.0)	1439 (64.7)
Any treatment-emergent event, excluding bleeding, acute DVT and PE events	1369 (62.0)	1370 (61.6)
Any treatment-emergent bleeding event	140 (6.3)	139 (6.3)
Any treatment-emergent acute DVT or PE event	41 (1.9)	85 (3.8)
Any drug-related treatment-emergent event	270 (12.2)	265 (11.9)
Any drug-related treatment-emergent event, excluding bleeding, acute DVT, and PE events	222 (10.0)	219 (9.8)
Any drug-related treatment-emergent bleeding event	75 (3.4)	66 (3.0)
Any drug-related treatment-emergent acute DVT or PE event	0 (0.0)	0 (0.0)
Any adverse event starting >2 days after stop of study drug	147 (6.7)	124 (5.6)
Any serious treatment-emergent event	146 (6.6)	181 (8.1)
Any drug-related serious treatment-emergent event	26 (1.2)	23 (1.0)
Any serious event starting >2 days after stop of study drug	29 (1.3)	28 (1.3)
Any adverse event resulting in permanent discontinuation of study drug	85 (3.8)	100 (4.5)
Any adverse event resulting in (prolonged) hospitalization	121 (5.5)	152 (6.8)

Conclusion(s)

In this study, oral administration of rivaroxaban 10 mg od was clinically effective and statistically superior to subcutaneous enoxaparin 40 mg od in the extended prevention (35 ± 4 days) of VTE in subjects undergoing elective total hip replacement. Rivaroxaban met the prespecified primary and secondary efficacy objectives. The relative risk reduction (unweighted relative risks) was 69.7% [95% CI: 48.8%; 82.1%] for the primary efficacy endpoint. The clinical benefit of rivaroxaban was accompanied by an acceptable safety profile, which was comparable to enoxaparin in terms of AE rates, treatment-emergent as well as during follow-up. The incidence of major and non-major clinically relevant bleeding events as well as all bleeding events was similar between the 2 treatment groups.

Publication(s):	Eriksson BI, Borris LC, Friedman RJ, Haas S, Huisman MV, Kakkar AK, Bandel TJ, Beckmann H, Muehlhofer E, Misselwitz F, Geerts W; RECORD 1 Study Group. Rivaroxaban versus enoxaparin for thromboprophylaxis after hip arthroplasty. N Engl J Med. 2008 Jun 26;358(26):2765-75.		
Date Created or Date Last Updated:	12 APR 2012	Date of Clinical Study Report:	24 AUG 2007

Investigational Site List

Marketing Authorization Holder in Germany	
Name	Bayer Pharma AG
Postal Address	D-13342 Berlin Deutschland
Sponsor in Germany (if applicable)	
Legal Entity Name	Bayer HealthCare AG
Postal Address	D-51368 Leverkusen, Germany

List of Investigational Sites

No	Facility Name	Street	ZIP Code	City	Country
1	Hospital Alvarez	Aranguren 2721	C1406FWY	Buenos Aires	ARGENTINA
2	Hospital Británico	Servicio de Hematología Perdriel 74	1280	Buenos Aires [Capital Federal]	ARGENTINA
3	Hospital Fernández	Traumatology Cerviño 3354 3°piso	C1425AGP	Buenos Aires	ARGENTINA
4	Hospital Militar Central "CIR. MY. C. Argerich"	Traumatology Service Hospital Militar Central "CIR. MY. C. Argerich" Av. Luis M. Campos 726	1426	Buenos Aires	ARGENTINA
5	Hospital Municipal de Berazatequi Evita Pueblo	Calle 135 y 27	1884	Berazategui	ARGENTINA
6	Sanatorio Mitre	Hematología Bartolomé Mitre 2553	C1039AAO	Buenos Aires	ARGENTINA
7	Sanatorio Regional UOM Avellaneda	Av. Hipólito Irigoyen 670	1870	Avellaneda	ARGENTINA

8	Eastern Clinical Research Unit - Box Hill	Eastern Clinical Research Unit Level 5, Clive Ward Centre 16 Arnold Street	3128	Box Hill	AUSTRALIA
9	Flinders Medical Centre	SouthPath Level 6 Flinders Medical Centre Flinders Drive Bedford Park	5042	Adelaide	AUSTRALIA
10	Fremantle Hospital	Alma Street	6160	Fremantle	AUSTRALIA
11	St George Hospital	Department of Clinical Haematology Ground Floor, W.R. Pitney Clinical Sciences Building Gray Street	2217	Kogarah	AUSTRALIA
12	The Avenue Cardiovascular Centre	42 The Avenue Windsor	3181	Melbourne	AUSTRALIA
13	Allgem. öffentl. Krankenhaus Wiener Neustadt	1. Interne Abteilung Corviniusring 3-5	2700	Wiener Neustadt	AUSTRIA
14	A.ö. Krankenhaus der Stadt Linz	Orthopädische Abteilung Krankenhausstraße 9	4020	Linz	AUSTRIA
15	KH d. Barmherzigen Schwestern Ried Betriebsges.m.b.H.	KH d. Barmherzigen Schwestern Ried Betriebsges.m.b.H. Schloßberg 1	4910	Ried	AUSTRIA

16	Klinikum Kreuzschwestern Wels GmbH	Klinikum Kreuzschwestern Wels GmbH Grieskrichner Str. 42	4600	Wels	AUSTRIA
17	Krankenhaus der Barmherzigen Schwestern Linz	Orthopädische Abteilung Seilerstätte 4	4010	Linz	AUSTRIA
18	Medizinische Universität Graz	Universitätsklinik f. Orthopädie Auenbruggerplatz5-7	8036	Graz	AUSTRIA
19	SMZ Baumgartner Höhe Otto Wagner Spital	Orthopädisches Zentrum Sanatoriumstraße 2	1140	Wien	AUSTRIA
20	Universitätsklinikum Innsbruck	Universitätsklinik f. Orthopädie Anichstraße 35	6020	Innsbruck	AUSTRIA
21	AZ H. Familie	s'Herenbaan 172	2840	REET	BELGIUM
22	AZ Klina	Augustijnlei 100	2930	BRASSCHAAT	BELGIUM
23	AZ St-Jan Brugge Oostende AV	Site St Jan A. Ruddershove 10	8000	BRUGGE	BELGIUM
24	CHR de Huy	Rue des trois ponts 2	4500	HUY	BELGIUM
25	Jan Palfijn Ziekenhuis	Lange Bremstraat 70	2170	MERKSEM	BELGIUM
26	Stedelijk Ziekenhuis	Brugsesteenweg 90	8800	ROESELARE	BELGIUM
27	UZ Leuven Pellenberg	Weligerveld 1	3212	PELLENBERG	BELGIUM
28	Virga Jesse Ziekenhuis	Stadsomvaart 11	3500	HASSELT	BELGIUM
29	Ziekenhuis Oost-Limburg	Campus Sint-Jan Schiepse Bos 6	3600	GENK	BELGIUM

30	ZNA Middelheim	Lindendreef 1	2020	ANTWERPEN	BELGIUM
31	Hospital de Traumáto-Ortopedia - INTO	Rua do Resende - 156 Centro	20 232 092	Rio de Janeiro	BRAZIL
32	Inst. de Assistência Médica ao Sérvidor Público Estadual	Rua Pedro de Toledo, 1800	04039-004	São Paulo	BRAZIL
33	Pontificia Universidade Católica - Centro Clínico	Instituto de Geriatria e Gerontologia Av. Ipiranga, 6690-3.and-cj.314 Jd. Botánico	90610-000	Porto Alegre	BRAZIL
34	Santa Casa de Misericordia de Porto Alegre	Rua Prof. Annes Dias 285	90470 340	Porto Alegre	BRAZIL
35	ADA Medical, Ltd.	601 Harwood Ave. South Suite 207	L1S 2J4	Ajax	CANADA
36	Grand River Hospital	835 King Street West	N2G 1G3	Kitchener	CANADA
37	Hopital St-Francois d'Assise-CHUQ	10 rue de l'Espinay	G1L 3L5	Quebec	CANADA
38	Montreal General Hospital	B5-157 1650 ave Cedar	H3G 1A6	Montreal	CANADA
39	Oakville-Trafalgar Memorial Hospital	327 Reynolds Street	L6J 3L7	Oakville	CANADA
40	Peterborough Regional Health Centre	1 Hospital Drive	K9J 7C6	Peterborough	CANADA
41	St. Mary's Hospital Center	3830 Lacombe Avenue	H3T 1M5	Montreal	CANADA
42	Stratford General Hospital	46 General Hospital Drive	N5A 2Y6	Stratford	CANADA

43	University of Alberta	Walter McKenzie HSC 2E3.32 8440 112th Street	T6G 2B7	Edmonton	CANADA
44	Hospital del Trabajador de Santiago	Calle Ramón Carnicer 185 Providencia		Santiago	CHILE
45	Hospital San José	Calle San Jose 1053 Independencia		Santiago	CHILE
46	Centro de Investigación Clínica FOQUS	Clinica Santa Bibiana Avenida Calle 127 No. 16A - 27 Consultorio 510		Bogotá	COLOMBIA
47	Cosultorio Privado Dr. Toledo	Calle 60A 5-54		Bogotá	COLOMBIA
48	Fundación Cardioinfantil	Calle 163 A No. 13B-60 Edificio Nuevo-Tercer Piso Departamento de Investigaciones		Bogota	COLOMBIA
49	Faculty Hospital Hradec Kralove	Ortopedicka Klinika Sokolska 581	500 05	Hradec Kralove	CZECH REPUBLIC
50	Fakultni nemocnice Plzen	Ortopedicka klinika Alej Svobody 80	304 60	Plzen	CZECH REPUBLIC
51	Hospital Karlovy Vary	Ortopedicke oddeleni Bezrucova 19	360 66	Karlovy Vary	CZECH REPUBLIC
52	Nemocnice Ceske Budejovice	Ortopedicke oddeleni B.Nemcove 585/54	370 87	Ceske Budejovice	CZECH REPUBLIC

53	Nemocnice Prostejov	Ortopedicke oddeleni Mathonova 291/1	796 04	Prostejov	CZECH REPUBLIC
54	Oblastni nemocnice Mlada Boleslav	Ortopedicke oddeleni V.Klementa 147	293 50	Mlada Boleslav	CZECH REPUBLIC
55	Oblastni Nemocnice Pribram	Ortopedicke oddeleni U nemocnice 84	261 26	Pribram I	CZECH REPUBLIC
56	Okresni nemocnice Jindrichuv Hradec	Ortopedicko-traumatologicke oddeleni U Nemocnice380/III	377 38	Jindrichuv Hradec	CZECH REPUBLIC
57	Ustredni vojenska nemocnice Praha	Ortopedicke oddeleni U Vojenske Nemocnice 1200	169 02	Praha 6	CZECH REPUBLIC
58	Vseobecna Fakultni Nemocnice Olomouc	Ortopedicka Klinika I.P. Pavlova 6	775 20	Olomouc	CZECH REPUBLIC
59	Gentofte Hospital	Ortopædkirurgisk Afdeling T 102 Niels Andersens Vej 65	DK-2900	Hellerup	DENMARK
60	Herlev Hospital	Ortopædkirurgisk Afd. T120 Herlev Ringvej 75	2730	Herlev	DENMARK
61	H:S Frederiksberg Hospital	Ortopædkirurgisk Klinik Elektivt Kirurgisk Center Nordre Fasanvej 57-59 Skadestuevej Indgang 1	2000	Frederiksberg	DENMARK

62	Nordsjællands Hospital - Hørsholm	Ortopædkirurgisk afd. Sekr., bygning 15, 2.sal Usserød Kongevej 102	2970	Hørsholm	DENMARK
63	Regionshospitalet Silkeborg	Ortopædkirurgisk afdeling Falkevej 1-3	8600	Silkeborg	DENMARK
64	Keski-Suomen keskussairaala	Orthopaedic dept	FIN-40620	Jyväskylä	FINLAND
65	Mikkelin keskussairaala	Ortopedinen osasto Porrassalmenkatu 35-37	FI 50100	Mikkeli	FINLAND
66	Seinäjoen keskussairaala	A32 Hanneksenrinne 7	60220	Seinäjoki	FINLAND
67	Centre clinical - Soyaux	Centre Clinical Service d'Anesthésie	16800	SOYAUX	FRANCE
68	Centre Hospitalier Mignot - Le Chesnay	Centre Hospitalier Mignot Service de Réanimation et Anesthésie 177, rue de Versailles	78150	LE CHESNAY	FRANCE
69	CHU STRASBOURG - Hôpital de Hautepierre	Hopitaux Universitaires Hopital de Hautepierre Service d'anesthésiologie 1, avenue Molière	67098	STRASBOURG	FRANCE
70	Clinique du Cèdre - Bois Guillaume	Clinique du Cèdre Service d'Anesthésie 950 rue de la Haie	76230	BOIS-GUILLAUME	FRANCE

71	Clinique les Maussins-Nollet - Paris	Clinique les Maussins-Nollet Service Anesthésie 67, rue de Romainville	75019	PARIS CEDEX 19	FRANCE
72	Clinique Océane - Vannes	Clinique Océane Service Anesthésie rue du Docteur Joseph Audic	56000	VANNES	FRANCE
73	Cochin - Paris	Hôpital Cochin Service d'Anesthésie 27, rue du Faubourg Saint-Jacques	75014	PARIS	FRANCE
74	Diaconesses Croix Saint Simon - Paris	Groupe Hospitalier Diaconesses Croix Saint Simon Département d'Anesthésie et de Réanimation 125 rue d'Avron	75960	PARIS CEDEX 20	FRANCE
75	Institut Médical des Sciences et du Sport - Monaco	Institut Médical des Sciences et du Sport Service d'Anesthésie 11bis avenue d'Ostende	98000	MONACO	FRANCE
76	Institut Montsouris - Paris	Institut Mutualiste Montsouris Service de chirurgie orthopedique 42 boulevard Jourdan	75877	PARIS CEDEX 14	FRANCE

77	Nouvelles Cliniques Nantaises - Nantes	Nouvelles Cliniques Nantaises SELARL CONVERGENCE Service d'Anesthésie 4, rue Eric Tabarly	44277	NANTES CEDEX	FRANCE
78	Polyclinique de l'Atlantique - Saint Herblain	Polyclinique de l'Atlantique Service Anesthésie Orthopédie rue Claude Bernard	44819	SAINT HERBLAIN	FRANCE
79	Polyclinique de Riaumont - Lievin	Polyclinique de Riaumont Service d'Anesthésie-Réanimation rue Entre Deux Monts	62806	LIEVIN	FRANCE
80	Asklepios Klinik Birkenwerder	Hubertusstraße 12 - 22	16547	Birkenwerder	GERMANY
81	Aukammklinik für operative Rheumatologie	und Orthopädie GmbH Leibnizstr. 21	65191	Wiesbaden	GERMANY
82	Caritas Krankenhaus GmbH	Orthopädie Uhlandstr. 7	97980	Bad Mergentheim	GERMANY
83	Klinikum Bremen Mitte gGmbH	Institut für Klinische Pharmakologie St.-Jürgen-Strasse 1	28177	Bremen	GERMANY
84	Klinikum Fürth	Chirurgische Klinik II Jakob-Henle-Str. 1	90766	Fürth	GERMANY
85	Klinikum Garmisch-Partenkirchen	Orthopädie Auenstr. 60	82467	Garmisch-Partenkirchen	GERMANY

86	Kreiskrankenhaus Rheinfelden	Orthopädie Am Vogelsang 4	79618	Rheinfelden	GERMANY
87	Medizinische Einrichtungen der Heinrich-Heine-Universität	Orthopädische Klinik Moorenstr. 5	40225	Düsseldorf	GERMANY
88	Medizinische Fakultät Carl Gustav Carus	Klinik und Poliklinik für Orthopädie Fetscherstraße 74	01307	Dresden	GERMANY
89	Olgahospital	Klinikum Stuttgart Orthopädische Klinik Bismarckstr. 8	70176	Stuttgart	GERMANY
90	Orthopädische Klinik König-Ludwig-Haus	Brettreichstrasse 11	97080	Würzburg	GERMANY
91	Orthopädische Universitätsklinik - Friedrichsheim	Allg. Orthopädie und Traumatologie Marienburgstr. 2	60528	Frankurt am Main	GERMANY
92	Sana Kliniken	Helmut-Ulrici-Kliniken Klinik für Endoprothetik Waldhausstrasse	16766	Sommerfeld	GERMANY
93	Städtische Kliniken Frankfurt am Main / Hoechst	Orthopädie Gotenstr. 6-8	65929	Frankfurt	GERMANY
94	Universität Rostock - Medizinische Fakultät	Orthopädische Klinik und Poliklinik Doberaner Strasse 142	18055	Rostock	GERMANY

95	Universitätsklinik Gießen und Marburg GmbH	Zentrum für Operative Medizin Klinik für Orthopädie Baldingerstraße	35043	Marburg	GERMANY
96	Universitätsklinikum Heidelberg	Studienzentrum der SDGC Im Neuheimer Feld 110	69120	Heidelberg	GERMANY
97	Universität Witten/Herdecke	Zentrum für Klinische Forschung der Universität Witten/Herdecke Pferdebachstr. 30	58455	Witten	GERMANY
98	Attikon University General Hospital of Attica	ATTIKON University Hospital / 1st Orthopaedic University Clinic 1 Rimini Str.	12462	Haidari	GREECE
99	KAT General Hospital of Athens	1st Orthopaedic University Clinic, 2 Nikis Str.	14561	Kifisia	GREECE
100	KAT General Hospital of Athens	6th Orthopaedic Clinic, 2 Nikis Str.	14561	Kifisia	GREECE
101	Bacs-Kiskun Country Hospital	Department of Orthopedics Nyiri u. 38	6000	Kecskemet	HUNGARY
102	Bekes County Hospital "Rethy Pal"	Department of Orthopedics Gyulai u. 18	5600	Bekescsaba	HUNGARY
103	Fejer megyei Szent Gyorgy Korhaz	Departmet of Othopedics Seregelyesi ut 3	8000	Szekesfehervar	HUNGARY

104	Peterfy Sandor utcai Korhaz - Rendelointezet	Department of Traumatology Peterfy Sandor u. 8-20.	1076	Budapest	HUNGARY
105	Petz Aladar Megyei Korhaz	Department of Orthopedics Vasvari Pal u.2-4	9024	Gyor	HUNGARY
106	Somogy County Hospital "Kaposi Mor"	Department of Orthopedics Tallian u 20	7400	Kaposvar	HUNGARY
107	Szeged University Medical School	Clinic of Orthopedics Semmelweis u. 6	6725	Szeged	HUNGARY
108	Tolna County Hospital	Department of Orthopedics Beri Balog Adam u.5-7	7100	Szekszard	HUNGARY
109	University of Semmelweis	Clinic of Orthopedics Karolina ut 27	1113	Budapest	HUNGARY
110	Assaf Harofeh Medical Center	Department Orthopedic A	70300	Zerifin	ISRAEL
111	Chaim Sheba Medical Center	The Israeli National Hemophilia Center	52621	Tel Hashomer	ISRAEL
112	Edith Wolfson Medical Center	Department of Orthopedic 62 Halohamin Street	58220	Holon	ISRAEL
113	Meir Medical Center	Department of Orthopedic 59 Tchernihovsky street	44281	Kfar-Saba	ISRAEL
114	Rabin Medical Center - Beilinson Campus	Department of Orthopedic Jabotinski Street	49100	Petach-Tiqva	ISRAEL

115	Rambam Medical Center	Hematology Department 8, Haaliya Hashniya St. Bat Galim	31096	Haifa	ISRAEL
116	Soroka University Medical Center	Department of Orthopedic P.O.B. 151	84101	Beer Sheva	ISRAEL
117	Tel Aviv Sourasky Medical Center	Department of orthopedic Surgery B 6 Weizmann Street	64239	Tel Aviv	ISRAEL
118	A.O. CTO-CRF-Maria Adelaide	Anestesia e Rianimazione Via Zuretti, 29	10100	Torino	ITALY
119	A.O. di Reggio Emilia	Centro Emostasi e Trombosi - Medicina Interna I Arcispedale Santa Maria Nuova Viale Risorgimento, 80	42100	Reggio Emilia	ITALY
120	A.O. Osp Circolo e Fond.Macchi	Dip. Scienze Ortopediche e Traumatologiche Viale L.Borri, 57	21100	Varese	ITALY
121	A.O. Ospedale Circolo Busto Arsizio	Ortopedia e Traumatologia Piazzale Solaro, 3	21052	Busto Arsizio	ITALY
122	A.O. Ospedali Riuniti Bergamo	Ortopedia e Traumatologia Largo Barozzi, 1	24128	Bergamo	ITALY
123	A.O. Osp Niguarda Ca' Granda	Ortotraumatologia Piazza Ospedale Maggiore, 3	20162	Milano	ITALY

124	A.O. San Gerardo di Monza	Ortopedia e Traumatologia Via Donizetti, 106	20052	Monza	ITALY
125	A.O.U. di Ferrara	Ortopedia Arcispedale Sant'Anna Corso Giovecca, 203	44100	Ferrara	ITALY
126	A.O.U. di Sassari	Clinica Ortopedica Viale S. Pietro, 43	07100	Sassari	ITALY
127	A.O.U. Ospedali Riuniti Umberto I - Lancisi - Salesi	Ortopedia Via Conca, 1 - Località Torrette	60126	Ancona	ITALY
128	A.O.U. Policlinico Giaccone	Ortopedia e Traumatologia Via del Vespro	90127	Palermo	ITALY
129	AUSL 1 Perugia - Umbria	Medicina Interna P.O. Alto Chiascio Largo San Francesco, 7/a - Località Branca	06024	Gubbio	ITALY
130	AUSL 1 SS Ospedale Marino	Ortopedia Ospedale Marino Regina Margherita Via Primo Maggio	07041	Alghero	ITALY
131	C.T.O. Università degli Studi di Firenze	II Clinica Ortopedica Largo P. Palagi, 1	50139	Firenze	ITALY

132	Gruppo Ospedaliero San Donato Foundation	Anestesia Locoregionale e Terapia del Dolore Policlinico San Donato Via Morandi, 30	20097	San Donato Milanese	ITALY
133	IRCCS A.O.U. San Martino e IST Ist.Nazionale Ricerca Cancro	Clinica Ortopedica I Dip. Medicina Interna e Specialità Mediche (DIMI) Largo R. Benzi, 10	16132	Genova	ITALY
134	IRCCS Fondazione San Raffaele	Ortopedia Istituto Scientifico Universitario San Raffaele Via Olgettina, 60	20132	Milano	ITALY
135	IRCCS Ist Clinico Humanitas	Centro Trombosi Via Manzoni, 56	20089	Rozzano	ITALY
136	IRCCS Ist Ortopedico Rizzoli	Anestesia, Rianimazione e Terapia Intensiva Istituto Ortopedico Rizzoli Via Pupilli, 1	40136	Bologna	ITALY
137	Università Cattolica Columbus	Malattie Emorragiche e Trombotiche Complesso Integrato Columbus Università Cattolica del Sacro Cuore Largo A. Gemelli, 8	00168	Roma	ITALY

138	Università Cattolica Policlinico Gemelli	Anestesiologia e Rianimazione Università Cattolica del Sacro Cuore Via G. Moscati, 31	00168	Roma	ITALY
139	Kaunas Medical University Hospital	Department Traumatology and Orthopaedics Eiveniu 2	LT-50009	Kaunas	LITHUANIA
140	Vilnius University Hospital of Emergency Care	Department Orthopaedics Siltnamiu 29	LT-04130	Vilnius	LITHUANIA
141	Academisch Medisch Centrum Universiteit van Amsterdam	Afd. ORCA/Orthopedie, G4-221, Meibergdreef 9		Amsterdam	NETHERLANDS
142	Bernhoven Ziekenhuis	Afd. orthopedie, Joannes Zwijsenlaan 121	5342 BT	Oss	NETHERLANDS
143	Diaconessenhuis	Afd. Orthopedie, Houtlaan 55	2334 CK	LEIDEN	NETHERLANDS
144	Isala Klinieken, lokatie Weezenlanden	afd. Orthopedie, Groot Wezenland 20	8011 JW	Zwolle	NETHERLANDS
145	Spaarne Ziekenhuis	Afdeling Orthopedie, Spaarnepoort 1	2134 TM	HOOFDDORP	NETHERLANDS
146	St. Maartenskliniek	Secretariat of Anaesthesiology, Hengstdal 3	6522 JV	NIJMEGEN	NETHERLANDS

147	Tergooiziekenhuizen Hilversum	Afd. orthopedie, Van Riebeeckweg 212	1213 XZ	HILVERSUM	NETHERLANDS
148	Martina Hansens Hospital	Ortopedisk kirurgisk avdeling	1306	Baerum postterminal	NORWAY
149	Notodden sykehus	Kirurgisk avdeling Notodden sykehus Henrik Wegelandsvei 9	NO-3675	Notodden	NORWAY
150	Sykehuset Innlandet HF Elverum	Kirurgisk avd. Sykehuset Innlandet HF Elverum	2409	Elverum	NORWAY
151	Sykehuset Innlandet HF Gjøvik	Kirurgisk avd. Sykehuset Innlandet HF Gjövik	2819	Gjövik	NORWAY
152	Sykehuset Innlandet HF Lillehammer	Ortopedisk avd. Sykehuset Innlandet HF Lillehammer	2609	Lillehammer	NORWAY
153	10 Wojskowy Szpital Kliniczny z Poliklinika SPZOZ	Klinika Ortopedii i Chirurgii Urazów Narzadu Ruchu ul. Powstanców Warszawy 5	85-681	Bydgoszcz	POLAND
154	Rehabilitacyjno-Ortopedyczny Zespól Opieki Zdrowotnej	Oddzial Ortopedyczny ul. Poswiecka 8	51-128	Wroclaw	POLAND

155	Samodzielny Publiczny Szpital Kliniczny nr 4	Katedra i Klinika Ortopedii, Traumatologii AM ul. Jaczewskiego 8	20-090	Lublin	POLAND
156	SP Szpital Kliniczny AM w Bialymstoku	Klinika Ortopedii i Traumatologii Akademia Medyczna w Bialymstoku ul. Marii Sklodowskiej-Curie 24 a	15-276	Bialystok	POLAND
157	SP Szpital Kliniczny nr 1 PAM	Klinika Ortopedii i Traumatologii ul. Unii Lubelskiej 1	71-252	Szczecin	POLAND
158	SP Szpital Kliniczny nr 7 Slaskiego Uniwersytetu Medycznego	Klinika Ortopedii i Traumatologii Narzadu Ruchu ul. Ziolowa 45-47	40-635	Katowice	POLAND
159	Szpital Kliniczny Dzieciatka Jezus -Centrum Leczenia Obrazen	Klinika Ortopedii i Traumatologii Narzadu Ruchu I Wydzial Lekarski ul. Lindleya 4	02-005	Warszawa	POLAND
160	Szpital Specjalistyczny im. Zeromskiego SPZOZ	Oddzial Chirurgii Ortopedyczno-Urazowej os. Na Skarpie 66	31-913	Krakow	POLAND
161	Szpital Uniwersytecki im. Antoniego Jurasza	Klinika Ortopedii i Traumatologii Narzadu Ruchu ul. M. Sklodowskiej-Curie 9	85-094	Bydgoszcz	POLAND

162	Szpital Wojewodzki	Oddzial Chirurgii Urazowo-ortopedycznej ul. Katowicka 64	45-060	Opole	POLAND
163	V Wojskowy Szpital Kliniczny i Poliklinika SPZOZ	Klinika Chirurgii Urazowej i Ortopedii ul. Wroclawska 1-3	30-901	Krakow	POLAND
164	Wielkop. Centrum Ortopedii i Chirurgii Urazowej	Oddzial Kobiecy ul. Gasiorowskich 7	60-703	Poznan	POLAND
165	Wojew. Centrum Ortopedii i Rehabilitacji Narzadu Ruchu	II Katedra Ortopedii UM Klinika Ortopedii i Ortopedii Dziecicej ul. Drewnowska 75	91-002	Lodz	POLAND
166	Wojewodzki Szpital Brodnowski SPZOZ	II Wydzial Lekarski AM Klinika Ortopedii i Rehabilitacji ul. Kondratowicza 8	03-242	Warszawa	POLAND
167	Wojewodzki Szpital Specjalistyczny im. M. Kopernika	Katedra i Klinika Ortopedii i Traumatologii Narzadu Ruchu AM ul. Nowe Ogrody 1/6	80-803	Gdansk	POLAND
168	Wojewodzki Szpital Specjalistyczny im. Rydygiera	Oddzial Ortopedii i Traumatologii Narzadu Ruchu Os. Zlotej Jesien 1	31-826	Krakow	POLAND

169	Wojewodzki Szpital Specjalistyczny im. S. Wyszynskiego SPZOZ	Oddzial Urazowo-Ortopedyczny al. Krasnicka 100	20-718	Lublin	POLAND
170	Wojewodzki Szpital Specjalistyczny nr 5	Katedra i Oddzial Kliniczny Ortopedii SlAM pl. Medyków 1	41-200	Sosnowiec	POLAND
171	Wojskowy Instytut Medyczny	Klinika Ortopedii ul. Szaserow 128	04-141	Warszawa	POLAND
172	Fakultna nemocnica s poliklinikou Zilina	Ortopedicke oddelenie ul. Vojtecha Spanyola 43	012 07	Zilina	SLOVAKIA
173	Nemocnica Kosice-Saca	Ortopedicke oddelenie Lucna 57	040-15	Kosice-Saca	SLOVAKIA
174	Univerzitna nemocnica Bratislava, Nemocnica Ruzinov	II Ortopedicka klinika Ruzinovska 6	826 06	Bratislava	SLOVAKIA
175	Clinical Projects Research SA	42 Russell Street	6850	Worcester	SOUTH AFRICA
176	Pretoria Academic Hospital Ethics Committee	H.W. Snyman Building Level 2/34 Prinshof / Gazena	0084	Pretoria	SOUTH AFRICA
177	Vergelegen Medi-Clinic	Dr. J.M. Engelbrect Block 1 Vergelegen MediClinic Main Road	7130	Somerset West	SOUTH AFRICA
178	Ciutat Sanitària i Universitaria de la Vall d'Hebron	Servicio de Traumatología Passeig de la Vall d'Hebrón, 119-129	08035	Barcelona	SPAIN

179	Clínica Platón	Servicio de Traumatología	08006	C/ Plató, 21	SPAIN
180	Clínica Universitaria de Navarra	Servicio de Hematología Avda. Pio XII, 36	31008	Pamplona	SPAIN
181	Complejo Hospitalario de Jaén	H. Universitario Neurotraumatológico Ctra. Madrid s/n	23009	Jaén	SPAIN
182	Fundación Hospital Alcorcón	Servicio de Traumatología	28922	Alcorcón	SPAIN
183	Hospital Central de Asturias	Servicio de Traumatología Celestino Villamil, s/n	33006	Oviedo	SPAIN
184	Hospital Clínic i Provincial de Barcelona	C/ Villarroel, 170	08036	Barcelona	SPAIN
185	Hospital Clínico Universitario de Santiago de Compostela	Servicio de Traumatología A Choupana, s/n	15706	Santiago de Compostela	SPAIN
186	Hospital Clínico Universitario de Valencia	Avda. Blasco Ibañez, 17	46010	Valencia	SPAIN
187	Hospital Clínico Universitario San Carlos	C/. Dr. Martín Lagos, s/n	28040	Madrid	SPAIN
188	Hospital del Mar	Servicio de Traumatología Paseig Marítim, 25-29	08003	Barcelona	SPAIN
189	Hospital Dos de Maig - Consorci Sanitari Integral	Servicio de Traumatología c/ Dos de Maig, 301	08025	Barcelona	SPAIN

190	Hospital General de Castelló	Servei de Traumatologia Avda. de Benicasim, s/n	12004	Castelló de la Plana	SPAIN
191	Hospital General de L'Hospitalet	Servicio de Cirugía y Traumatología Avda. Josep Molins, 29-41	08906	L'Hospitaled de Llobregat	SPAIN
192	Hospital Txagorritxu	Servicio de Traumatología José Atxotegui, s/n	01009	Vitoria	SPAIN
193	Hospital Universitari Germans Trias i Pujol	Ctra. del Canyet, s/n	08916	Badalona	SPAIN
194	Länssjukhuset	Ortopedkliniken	301 85	Halmstad	SWEDEN
195	Länssjukhuset Ryhov	Ortopedkliniken	551 85	Jönköping	SWEDEN
196	Sjukhuset i Varberg	Ortopedkliniken	432 81	Varberg	SWEDEN
197	Skaraborgs Sjukhus Lidköping	Ortopedkliniken	531 85	Lidköping	SWEDEN
198	SU/Östra	Ortopedkliniken	416 85	Göteborg	SWEDEN
199	Västerviks Sjukhus	Ortopedkliniken	593 81	Västervik	SWEDEN
200	Cukurova Universitesi Tip Fakultesi Hastanesi	Division of Orthopaedics and Traumatology Cukurova Universitesi Hastanesi, Bacali		Adana	TURKEY

201	Dokuz Eylul Universitesi Tip Fakultesi	Division of Orthopaedics and Traumatology Dokuz Eylul Universitesi Hastanesi, Inciralti		Izmir	TURKEY
202	Istanbul Univ. Medical Faculty	Division of Orthopaedics and Traumatology Istanbul Universitesi Tip Fakultesi, Capa		Istanbul	TURKEY
203	Marmara University Medical Faculty	Division of Orthopaedics and Traumatology Marmara Universitesi Hastanesi, Altunizade		Istanbul	TURKEY
204	MoH Goztepe Trainning Hospital	Division of Orthopaedics and Traumatology SSK Goztepe Hastanesi, Goztepe		Istanbul	TURKEY
205	Arizona Research Center, Inc.	2525 West Greenway Road Suite 114	85023	Phoenix	UNITED STATES
206	Atlanta Knee and Sports Medicine	2801 North Decatur Road Suite 200	30033	Decatur	UNITED STATES
207	Capstone Clinical Trials, Inc.	2018 Brookwood Medical Center Drive Suite 314	35209	Birmingham	UNITED STATES
208	Capstone Clinical Trials, Inc.	2018 Brookwood Medical Center Drive Suite 314	35209	Birmingham	UNITED STATES

209	Carrell Clinic	9301 North Central Expressway Suite 400	75231	Dallas	UNITED STATES
210	Center for Joint Care	900 North Orange Street Suite 103	59802	Missoula	UNITED STATES
211	Charleston Orthopaedic Associates	2270 Ashley Crossing Drive Suite 110	29414	Charleston	UNITED STATES
212	Colorado Orthopaedic Consultants, PC	401 West Hampden Place Suite 220	80110	Englewood	UNITED STATES
213	Lubbock Sports Medicine	4110 22nd Place	79410	Lubbock	UNITED STATES
214	Saline Memorial Hospital	1 Medical Park Drive	72015	Benton	UNITED STATES
215	Scripps Center of Orthopaedic Research & Education	11025 North Torrey Pines Rd. Suite 140	92037	La Jolla	UNITED STATES
216	Texas Orthopedic Specialists	Westover Professional Building 4100 Heritage Avenue Suite 102	76051	Grapevine	UNITED STATES
217	Unlimited Research, LP	12709 Toepperwein Road Suite 101	78233	San Antonio	UNITED STATES
218	West Alabama Research, Inc.	Black Warrior Medical Building 100 Rice Mine Road Loop Suite 104	35406	Tuscaloosa	UNITED STATES

Product Identification Information

Product Type	Drug
US Brand/Trade Name(s)	Xarelto
Brand/Trade Name(s) ex-US	Xarelto
Generic Name	rivaroxaban
Main Product Company Code	BAY59-7939
Other Company Code(s)	
Chemical Description	IUPAC Name: 5-Chloro-N-({(5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)phenyl]-1,3-oxazolidin-5-yl}methyl)-2-thiophenecarboxamide
Other Product Aliases	

Date of last Update/Change: 04 Mar 2013