ClinicalTrials.gov Protocol and Results Registration System (PRS) Receipt
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A Study of Bonviva (Ibandronate) in Women With Post-Menopausal Osteoporosis Who Have Received Previous Bonviva Treatment

This study has been completed.

Sponsor:	Hoffmann-La Roche
Collaborators:	
Information provided by:	Hoffmann-La Roche
ClinicalTrials.gov Identifier:	NCT00551174

Purpose

This 2-arm study was designed to assess the long-term safety and tolerability of intravenous (IV) treatment with 2 mg or 3 mg Bonviva in women with post-menopausal osteoporosis who had previously completed Bonviva study BM16550 (DIVA study; NCT00048074). Patients received Bonviva either 2 mg IV every 2 months, or 3 mg IV every 3 months. Patients also received daily supplementation with vitamin D and calcium. The anticipated time on study treatment was 2+ years, and the target sample size was 500+ individuals.

Condition	Intervention	Phase
Post-Menopausal Osteoporosis	Drug: ibandronate [Bonviva/Boniva]	Phase 4

Study Type: Interventional
Study Design: Treatment, Parallel Assignment, Open Label, Non-Randomized, Safety/Efficacy Study
Official Title: Open Label, Parallel Group, Multicenter Study of Two Intravenous (IV) Ibandronate Dose Regimens (2 mg Every 2 Months and 3 mg Every 3 Months) in Women With Postmenopausal Osteoporosis Who Completed Trial BM16550

Further study details as provided by Hoffmann-La Roche:

Primary Outcome Measure:

- Relative Percent Change From Baseline in Mean Lumbar Spine Bone Mineral Density (BMD) at 12, 24 and 36 Months [Time Frame: Baseline,12, 24 and 36 months] [Designated as safety issue: No]

Relative change percent(%) from baseline of MA17904 and BM16550 (NCT00048074) in mean lumbar spine (L2-L4) BMD at 12, 24 and 36 months (i.e., 3, 4 and 5 years after initiation of BM16550)- Study MA17940.Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.

Secondary Outcome Measures:

- Relative Percent Change From Baseline in Mean Total Hip BMD at 12, 24 and 36 Months [Time Frame: Baseline,12, 24 and 36 months] [Designated as safety issue: No]
  Relative change percent (%) from baseline of MA17904 and BM16550 (NCT00048074) in mean total hip BMD at 12, 24 and 36 months (i.e., 3, 4 and 5 years after initiation of BM16550)- Study MA17904. Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.
- Relative Percent Change From Baseline in Serum C-telopeptide Crosslinks of Type I Collagen (CTX) at Trough at 6, 12, 24 and 36 Months [Time Frame: Baseline, 6, 12, 24 and 36 months (i.e., 2.5, 3, 4 and 5 years after initiation of BM16550)] [Designated as safety issue: No]
  Relative percent (%) change from baseline of MA17904 and BM16550 (NCT00048074) in serum C-telopeptide crosslinks of type I collagen (CTX) at trough at 6, 12, 24 and 36 months- Study MA17904. Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=6, 12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.
- Relative Percent Change From Baseline in Post-dose Suppression of Serum CTX at 6 Months [Time Frame: Baseline, 6 months] [Designated as safety issue: No]
  Relative percent (%) change from MA17904 baseline of post-dose suppression of serum C-telopeptide crosslinks of type I collagen (CTX) at 6 months- Study MA17904. Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t= 6 months. The baseline value is used as a reference to calculate the relative change from baseline.

Enrollment: 781
Study Start Date: October 2004
Primary Completion Date: November 2008
Study Completion Date: November 2008

Arms	Assigned Interventions
Experimental: 1	Drug: ibandronate [Bonviva/Boniva] 3 mg IV every 3 months for 3 years. All patients received a minimum of calcium 500 milligrams/ day (upper limit 1500 mg/day) and Vitamin D 400 Internation Units/day (IU/day).
Active Comparator: 2	Drug: ibandronate [Bonviva/Boniva] 2 mg IV every 2 months for 3 years. All patients received a minimum of calcium 500 milligrams/ day (upper limit 1500 mg/day) and Vitamin D 400 Internation Units/day (IU/day).

Eligibility

Genders Eligible for Study: Female
Accepts Healthy Volunteers: No

Criteria

Inclusion Criteria:

- Successful completion of Bonviva study BM16550 (NCT00048074), with at least 75% compliance
- Ambulatory

Exclusion Criteria:

- Patients who completed the Bonviva study BM16550 (NCT00048074) >3 months before the planned start date for this study
- Malignant disease diagnosed since inclusion into previous study
- Treatment with drugs affecting bone metabolism since inclusion into previous study

Contacts and Locations

Locations

United States, Georgia
Gainesville, Georgia, United States, 30501
United States, Missouri
St Louis, Missouri, United States, 63110
United States, Nebraska
Omaha, Nebraska, United States, 68131
United States, North Dakota
Bismarck, North Dakota, United States, 58501
Fargo, North Dakota, United States, 58103
United States, Wisconsin
Madison, Wisconsin, United States, 53792
Australia
St. Leonards, Australia, 2139
Sydney, Australia, 3129
Belgium
Bruxelles, Belgium, 1180
Liege, Belgium, 4020
Czech Republic
Plzen, Czech Republic, 305 99
Praha, Czech Republic, 128 00
Denmark
Aalborg, Denmark, 9000
Ballerup, Denmark, 2750
København, Denmark, 1399
Vejle, Denmark, 7100
Århus, Denmark, 8000
France
Lyon, France, 69000
Orleans, France, 45032
Germany

Berlin, Germany, 12200
Essen, Germany, 45276
Hamburg, Germany, 20354

Hungary
Budapest, Hungary, 1036

Italy
Arenzano, Italy, 16011
Siena, Italy, 53100
Valeggio Sul Mincio, Italy, 37067

Mexico
Mexico City, Mexico, 11000
Monterrey, Mexico, 64460

Norway
Haugesund, Norway, 5507
Oslo, Norway, 0176
Stavanger, Norway, 4010

Poland
Grudziadz, Poland, 86-300
Krakow, Poland, 31-501
Krakow, Poland, 30-510

South Africa
Cape Town, South Africa, 7500
Pretoria, South Africa
Sommerset West, South Africa, 7129

Spain
Madrid, Spain, 28046

United Kingdom
Aberdeen, United Kingdom, AB25 2ZD

Investigators

Study Director:	Clinical Trials	Hoffmann-La Roche, +1 973 235 5000

More Information

Clinical Study Report Synopsis
http://www.roche-trials.com/studyResultGet.action?studyResultNumber=MA17904

Responsible Party:	Hoffmann-La Roche (Disclosures Group)
Study ID Numbers:	MA17904
Health Authority:	United States: Food and Drug Administration

Study Results

Participant Flow

Recruitment Details	Study enrollment was to occur at centers that had participated in BM16550 (NCT00048074) in North America, Mexico, Europe, Australia, and South Africa.
Pre-Assignment Details	Postmenopausal osteoporosis. Patients having completed study BM16550 (NCT00048074) and who had complied with the intravenous (IV) regimen during the second year of study BM16550 (NCT00048074) for 75% or more.

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Overall Study

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
Started	381	400
Completed	362 [1]	394 [1]
Not Completed	19	6

[1] Intent-to-Treat (ITT) Population

Baseline Characteristics

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Baseline Measures

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo	Total
Number of Participants	381	400	781

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo	Total
Age, Continuous [units: years] Mean (Standard Deviation)	68.2 (6.1)	67.9 (6.0)	68.0 (6.0)
Gender, Male/Female [units: participants]			
Female	381	400	781
Male	0	0	0
Race/Ethnicity, Customized [units: participants]			
Caucasian/White	363	388	751
Black	0	0	0
Oriental	0	0	0
Hispanic	17	11	28
Other	1	1	2
BMI [units: kg/m*2] Mean (Standard Deviation)	25.63 (4.295)	25.89 (4.394)	25.76 (4.3460)

Outcome Measures

1. Primary Outcome Measure:

Measure Title	Relative Percent Change From Baseline in Mean Lumbar Spine Bone Mineral Density (BMD) at 12, 24 and 36 Months
Measure Description	Relative change percent(%) from baseline of MA17904 and BM16550 (NCT00048074) in mean lumbar spine (L2-L4) BMD at 12, 24 and 36 months (i.e., 3, 4 and 5 years after initiation of BM16550)- Study MA17940.Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.
Time Frame	Baseline,12, 24 and 36 months
Safety Issue?	No

Analysis Population Description

ITT population: 3 mg group = 394, 2 mg group = 362. Analysis populations (AP) for Month 12: 3 mg group = 383, 2 mg group = 348; Month 24: 3 mg group = 374, 2 mg group = 332; Month 36: 3 mg group = 349, 2 mg group = 314.

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Measured Values

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
Number of Participants Analyzed	362	394
Relative Percent Change From Baseline in Mean Lumbar Spine Bone Mineral Density (BMD) at 12, 24 and 36 Months [units: Percent change] Mean (Standard Deviation)		
Baseline	0.7969 (0.0764)	0.7861 (0.0824)
Percent Change from Baseline at Month 12	0.8378 (3.1920)	0.8845 (3.6386)
Percent Change from Baseline at Month 24	1.6785 (3.6494)	1.5742 (4.0665)
Percent Change from Baseline at Month 36	1.9813 (4.6619)	2.0559 (4.4747)

2. Secondary Outcome Measure:

Measure Title	Relative Percent Change From Baseline in Mean Total Hip BMD at 12, 24 and 36 Months
Measure Description	Relative change percent (%) from baseline of MA17904 and BM16550 (NCT00048074) in mean total hip BMD at 12, 24 and 36 months (i.e., 3, 4 and 5 years after initiation of BM16550)- Study MA17904. Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.
Time Frame	Baseline,12, 24 and 36 months
Safety Issue?	No

Analysis Population Description

ITT populations: 3 mg group = 394, 2 mg group = 362. Analysis populations (AP) for Month 12: 3 mg group = 381, 2 mg group = 347; Month 24: 3 mg group = 371, 2 mg group = 330; Month 36: 3 mg group = 349, 2 mg group = 314.

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Measured Values

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
Number of Participants Analyzed	362	394
Relative Percent Change From Baseline in Mean Total Hip BMD at 12, 24 and 36 Months [units: Percent change] Mean (Standard Deviation)		
Baseline	0.7651 (0.1035)	0.7665 (0.0954)
Percent Change from Baseline at Month 12	0.4487 (2.5604)	0.1258 (3.0450)
Percent Change from Baseline Month 24	0.0483 (3.0148)	-0.049 (3.0440)
Percent Change from Baseline at Month 36	-0.1546 (3.3604)	-0.2619 (4.0099)

3. Secondary Outcome Measure:

Measure Title	Relative Percent Change From Baseline in Serum C-telopeptide Crosslinks of Type I Collagen (CTX) at Trough at 6, 12, 24 and 36 Months
Measure Description	Relative percent (%) change from baseline of MA17904 and BM16550 (NCT00048074) in serum C-telopeptide crosslinks of type I collagen (CTX) at trough at 6, 12, 24 and 36 months- Study MA17904. Percent change=[(measure at time t - measure at baseline)/measure at baseline]*100%, where t=6, 12, 24 and 36 months. The baseline value is used as a reference to calculate the relative change from baseline.
Time Frame	Baseline, 6, 12, 24 and 36 months (i.e., 2.5, 3, 4 and 5 years after initiation of BM16550)
Safety Issue?	No

Analysis Population Description

Per-Protocol population: 3 mg group = 363, 2 mg group = 344. Analysis populations (AP) for Month 6: 3 mg group = 87, 2 mg group: 92; Month 12: 3 mg group = 92, 2 mg group = 92; Month 24: 3 mg group = 83, 2 mg group = 85; Month 36: 3 mg group = 75, 2 mg group = 76.

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Measured Values

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
Number of Participants Analyzed	344	363
Relative Percent Change From Baseline in Serum C-telopeptide Crosslinks of Type I Collagen (CTX) at Trough at 6, 12, 24 and 36 Months [units: Percent change] Mean (Standard Deviation)		
Baseline	0.232 (0.1327)	0.264 (0.1497)
Percent Change from Baseline at Month 6	17.562 (64.2113)	20.091 (65.6960)
Percent Change from Baseline at Month 12	35.934 (82.8825)	34.009 (103.5972)
Percent Change from Baseline at Month 24	42.237 (73.7395)	47.442 (121.5415)
Percent Change from Baseline at Month 36	41.478 (67.1965)	58.478 (160.1702)

4. Secondary Outcome Measure:

Measure Title	Relative Percent Change From Baseline in Post-dose Suppression of Serum CTX at 6 Months
Measure Description	Relative percent (%) change from MA17904 baseline of post-dose suppression of serum C-telopeptide crosslinks of type I collagen (CTX) at 6 months- Study MA17904. Percent change=[(measure at time t - measure at baseline)/ measure at baseline]*100%, where t= 6 months. The baseline value is used as a reference to calculate the relative change from baseline.
Time Frame	Baseline, 6 months
Safety Issue?	No

Analysis Population Description

Per-Protocol population: 3 mg group = 363, 2 mg group = 344. Analysis populations (AP) for Month 6: 3 mg group = 89, 2 mg group: 93.

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Measured Values

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
Number of Participants Analyzed	344	363
Relative Percent Change From Baseline in Post-dose Suppression of Serum CTX at 6 Months [units: Percent change] Mean (Standard Deviation)		
Baseline	0.232 (0.1327)	0.264 (0.1497)
Percent Change from Baseline at Month 6	-78.024 (18.2619)	-81.617 (22.0440)

Reported Adverse Events

Time Frame	[Not specified]
Additional Description	[Not specified]

Reporting Groups

	Description
2 mg Ibandronate q2mo	2 mg ibandronate intravenously (IV) every 2 months (q2mo) for 3 years
3 mg Ibandronate q3mo	3 mg ibandronate intravenously (IV) every 3 months (q3mo) for 3 years

Serious Adverse Events

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Total	90/381 (23.62%)	84/400 (21%)
Blood and lymphatic system disorders		
Anaemia [A] *	0/381 (0%)	1/400 (0.25%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Cardiac disorders		
Angina Pectoris [A] *	1/381 (0.26%)	1/400 (0.25%)
Atrial Fibrillation [A] *	3/381 (0.79%)	0/400 (0%)
Atrial Flutter [A] *	0/381 (0%)	1/400 (0.25%)
Atrioventricular Block Complete [A] *	0/381 (0%)	1/400 (0.25%)
Cardiac Discomfort [A] *	1/381 (0.26%)	0/400 (0%)
Cardio-Respiratory Arrest [A] *	0/381 (0%)	1/400 (0.25%)
Coronary Artery Disease [A] *	1/381 (0.26%)	0/400 (0%)
Left Ventricular Failure [A] *	1/381 (0.26%)	0/400 (0%)
Myocardial Infarction [A] *	6/381 (1.57%)	0/400 (0%)
Myocardial Ischaemia [A] *	2/381 (0.52%)	1/400 (0.25%)
Wolff-Parkinson-White Syndrome [A] *	1/381 (0.26%)	0/400 (0%)
Ear and labyrinth disorders		
Vertigo [A] *	3/381 (0.79%)	0/400 (0%)
Endocrine disorders		
Goitre [A] *	0/381 (0%)	1/400 (0.25%)
Eye disorders		
Cataract [A] *	1/381 (0.26%)	0/400 (0%)
Conjunctivitis [A] *	0/381 (0%)	1/400 (0.25%)
Dacryostenosis Acquired [A] *	1/381 (0.26%)	0/400 (0%)
Gastrointestinal disorders		
Abdominal Pain [A] *	1/381 (0.26%)	0/400 (0%)
Abdominal Pain Lower [A] *	0/381 (0%)	1/400 (0.25%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Colitis Ulcerative [A] *	1/381 (0.26%)	0/400 (0%)
Constipation [A] *	0/381 (0%)	1/400 (0.25%)
Diverticulum Intestinal [A] *	0/381 (0%)	1/400 (0.25%)
Duodenal Ulcer [A] *	1/381 (0.26%)	1/400 (0.25%)
Duodenal Ulcer Haemorrhage [A] *	0/381 (0%)	1/400 (0.25%)
Dysphagia [A] *	0/381 (0%)	1/400 (0.25%)
Femoral Hernia [A] *	0/381 (0%)	1/400 (0.25%)
Gastrointestinal Disorder [A] *	1/381 (0.26%)	0/400 (0%)
Gastrointestinal Haemorrhage [A] *	1/381 (0.26%)	0/400 (0%)
Gatritis [A] *	0/381 (0%)	1/400 (0.25%)
Hiatus Hernia [A] *	1/381 (0.26%)	2/400 (0.5%)
Inguinal Hernia [A] *	0/381 (0%)	1/400 (0.25%)
Inguinal Hernia, Obstructive [A] *	1/381 (0.26%)	0/400 (0%)
Pancreatitis Necrotising [A] *	1/381 (0.26%)	0/400 (0%)
Papilla of Vater Stenosis [A] *	1/381 (0.26%)	0/400 (0%)
Peptic Ulcer Haemorrhage [A] *	1/381 (0.26%)	0/400 (0%)
Subileus [A] *	1/381 (0.26%)	0/400 (0%)
General disorders		
Chest Pain [A] *	1/381 (0.26%)	1/400 (0.25%)
Fatigue [A] *	1/381 (0.26%)	0/400 (0%)
Malaise [A] *	0/381 (0%)	1/400 (0.25%)
Multi-Organ Failure [A] *	1/381 (0.26%)	0/400 (0%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Non-Cardiac Chest Pain [A] *	1/381 (0.26%)	0/400 (0%)
Hepatobiliary disorders		
Bile Duct Stone [A] *	1/381 (0.26%)	1/400 (0.25%)
Cholangitis [A] *	0/381 (0%)	1/400 (0.25%)
Cholecystitis [A] *	0/381 (0%)	2/400 (0.5%)
Cholelithiasis [A] *	1/381 (0.26%)	1/400 (0.25%)
Infections and infestations		
Appendicitis [A] *	1/381 (0.26%)	0/400 (0%)
Borrelia Infection [A] *	1/381 (0.26%)	0/400 (0%)
Breast Abscess [A] *	1/381 (0.26%)	0/400 (0%)
Bronchopneumonia [A] *	1/381 (0.26%)	0/400 (0%)
Escherichia Bacteraemia [A] *	0/381 (0%)	1/400 (0.25%)
Eye Infection [A] *	0/381 (0%)	1/400 (0.25%)
Gallbladder Empyema [A] *	1/381 (0.26%)	0/400 (0%)
Gastrointestinal Infection [A] *	1/381 (0.26%)	0/400 (0%)
Herpes Zoster [A] *	0/381 (0%)	1/400 (0.25%)
Herpes Zoster Ophthalmic [A] *	0/381 (0%)	1/400 (0.25%)
Infective Tenosynovitis [A] *	1/381 (0.26%)	0/400 (0%)
Lower Respiratory Tract Infection [A] *	0/381 (0%)	1/400 (0.25%)
Osteomyelitis [A] *	1/381 (0.26%)	0/400 (0%)
Pneumonia [A] *	5/381 (1.31%)	4/400 (1%)
Pulmonary Tuberculosis [A] *	1/381 (0.26%)	0/400 (0%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Pyelonephritis Acute [A] *	1/381 (0.26%)	0/400 (0%)
Typhoid Fever [A] *	1/381 (0.26%)	0/400 (0%)
Urinary Tract Infection [A] *	1/381 (0.26%)	0/400 (0%)
Urosepsis [A] *	0/381 (0%)	1/400 (0.25%)
Injury, poisoning and procedural complications		
Ankle Fracture [A] *	1/381 (0.26%)	0/400 (0%)
Clavicle Fracture [A] *	0/381 (0%)	1/400 (0.25%)
Contusion [A] *	1/381 (0.26%)	0/400 (0%)
Femoral Neck Fracture [A] *	1/381 (0.26%)	2/400 (0.5%)
Femur Fracture [A] *	1/381 (0.26%)	3/400 (0.75%)
Foot Fracture [A] *	1/381 (0.26%)	0/400 (0%)
Hand Fracture [A] *	0/381 (0%)	1/400 (0.25%)
Humerus Fracture [A] *	1/381 (0.26%)	1/400 (0.25%)
Joint Dislocation [A] *	0/381 (0%)	1/400 (0.25%)
Lower Limb Fracture [A] *	1/381 (0.26%)	1/400 (0.25%)
Lumbar Vertebral Fracture [A] *	2/381 (0.52%)	0/400 (0%)
Pelvic Fracture [A] *	0/381 (0%)	1/400 (0.25%)
Radius Fracture [A] *	3/381 (0.79%)	2/400 (0.5%)
Rib Fracture [A] *	1/381 (0.26%)	0/400 (0%)
Spinal Compression Fracture [A] *	0/381 (0%)	1/400 (0.25%)
Tendon Rupture [A] *	1/381 (0.26%)	0/400 (0%)
Ulna Fracture [A] *	1/381 (0.26%)	2/400 (0.5%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Wrist Fracture [A] *	0/381 (0%)	1/400 (0.25%)
Investigations		
Platelet Count Decreased [A] *	0/381 (0%)	1/400 (0.25%)
Musculoskeletal and connective tissue disorders		
Arthralgia [A] *	1/381 (0.26%)	0/400 (0%)
Arthritis [A] *	0/381 (0%)	1/400 (0.25%)
Back Pain [A] *	2/381 (0.52%)	1/400 (0.25%)
Bursitis [A] *	0/381 (0%)	1/400 (0.25%)
Foot Deformity [A] *	1/381 (0.26%)	2/400 (0.5%)
Intervertebral Disc Disorder [A] *	1/381 (0.26%)	0/400 (0%)
Intervertebral Disc Protrusion [A] *	0/381 (0%)	2/400 (0.5%)
Joint Effusion [A] *	1/381 (0.26%)	0/400 (0%)
Lumbar Spinal Stenosis [A] *	0/381 (0%)	1/400 (0.25%)
Muscle Haemorrhage [A] *	1/381 (0.26%)	0/400 (0%)
Musculoskeletal Chest Pain [A] *	0/381 (0%)	1/400 (0.25%)
Musculoskeletal Pain [A] *	0/381 (0%)	1/400 (0.25%)
Myalgia [A] *	1/381 (0.26%)	0/400 (0%)
Osteoarthritis [A] *	3/381 (0.79%)	5/400 (1.25%)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)		
Acute Myeloid Leukaemia [A] *	0/381 (0%)	1/400 (0.25%)
Adenocarcinoma Pancreas [A] *	1/381 (0.26%)	0/400 (0%)
B-Cell Lymphoma [A] *	0/381 (0%)	1/400 (0.25%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Basal Cell Carcinoma [A] *	2/381 (0.52%)	0/400 (0%)
Benign Uterine Neoplasm [A] *	0/381 (0%)	1/400 (0.25%)
Bile Duct Cancer [A] *	0/381 (0%)	1/400 (0.25%)
Breast Cancer [A] *	1/381 (0.26%)	5/400 (1.25%)
Colon Cancer [A] *	2/381 (0.52%)	0/400 (0%)
Endometrial Cancer [A] *	1/381 (0.26%)	0/400 (0%)
Lipoma [A] *	1/381 (0.26%)	0/400 (0%)
Lung Adenocarcinoma [A] *	0/381 (0%)	1/400 (0.25%)
Lung Neoplasm Malignant [A] *	1/381 (0.26%)	1/400 (0.25%)
Myelodysplastic Syndrome [A] *	0/381 (0%)	1/400 (0.25%)
Ovarian Cancer [A] *	1/381 (0.26%)	1/400 (0.25%)
Rectal Cancer [A] *	1/381 (0.26%)	1/400 (0.25%)
Rectal Cancer Recurrent [A] *	1/381 (0.26%)	0/400 (0%)
Small Cell Lung Cancer Stage Unspecified [A] *	0/381 (0%)	1/400 (0.25%)
Squamous Cell Carcinoma of Skin [A] *	1/381 (0.26%)	0/400 (0%)
Thyroid Cancer Metastatic [A] *	1/381 (0.26%)	0/400 (0%)
Thyroid Neoplasm [A] *	1/381 (0.26%)	1/400 (0.25%)
Uterine Cancer [A] *	0/381 (0%)	1/400 (0.25%)
Nervous system disorders		
Carotid Artery Stenosis [A] *	1/381 (0.26%)	0/400 (0%)
Cauda Equina Syndrome [A] *	1/381 (0.26%)	0/400 (0%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Cerebral Infarction [A] *	0/381 (0%)	1/400 (0.25%)
Cerebrovascular Accident [A] *	0/381 (0%)	3/400 (0.75%)
Parkinson's Disease [A] *	1/381 (0.26%)	0/400 (0%)
Presyncope [A] *	0/381 (0%)	1/400 (0.25%)
Sciatica [A] *	2/381 (0.52%)	0/400 (0%)
Syncope [A] *	0/381 (0%)	1/400 (0.25%)
Transient Ischaemic Attack [A] *	1/381 (0.26%)	3/400 (0.75%)
Psychiatric disorders		
Depression [A] *	0/381 (0%)	1/400 (0.25%)
Renal and urinary disorders		
Hydronephrosis [A] *	1/381 (0.26%)	0/400 (0%)
Nephrolithiasis [A] *	0/381 (0%)	2/400 (0.5%)
Urethral Stenosis [A] *	1/381 (0.26%)	0/400 (0%)
Reproductive system and breast disorders		
Ovarian Cyst [A] *	1/381 (0.26%)	0/400 (0%)
Uterine Polyp [A] *	2/381 (0.52%)	0/400 (0%)
Uterine Prolapse [A] *	1/381 (0.26%)	0/400 (0%)
Vaginal Haemorrhage [A] *	1/381 (0.26%)	1/400 (0.25%)
Vaginal Prolapse [A] *	0/381 (0%)	1/400 (0.25%)
Respiratory, thoracic and mediastinal disorders		
Acute Pulmonary Oedema [A] *	1/381 (0.26%)	0/400 (0%)
Bronchitis Chronic [A] *	1/381 (0.26%)	0/400 (0%)
Chronic Obstructive Pulmonary Disease [A] *	3/381 (0.79%)	0/400 (0%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Dyspnoea [A] *	1/381 (0.26%)	0/400 (0%)
Epistaxis [A] *	0/381 (0%)	1/400 (0.25%)
Pleurisy [A] *	0/381 (0%)	1/400 (0.25%)
Pneumothorax [A] *	1/381 (0.26%)	0/400 (0%)
Pulmonary Embolism [A] *	1/381 (0.26%)	1/400 (0.25%)
Pulmonary Fibrosis [A] *	0/381 (0%)	1/400 (0.25%)
Pulmonary Oedema [A] *	1/381 (0.26%)	0/400 (0%)
Pulmonary Thrombosis [A] *	1/381 (0.26%)	0/400 (0%)
Respiratory Failure [A] *	0/381 (0%)	1/400 (0.25%)
Skin and subcutaneous tissue disorders		
Rash Papular [A] *	1/381 (0.26%)	0/400 (0%)
Urticaria [A] *	1/381 (0.26%)	0/400 (0%)
Vascular disorders		
Deep Vein Thrombosis [A] *	1/381 (0.26%)	1/400 (0.25%)
Hypertension [A] *	1/381 (0.26%)	0/400 (0%)
Hypertensive Crisis [A] *	1/381 (0.26%)	0/400 (0%)
Hypotension [A] *	0/381 (0%)	1/400 (0.25%)

* Indicates events were collected by non-systematic methods.
A Term from vocabulary, MedDRA (11.1)

Other Adverse Events

Frequency Threshold Above Which Other Adverse Events are Reported: 5%

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Total	265/381 (69.55%)	285/400 (71.25%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Eye disorders		
Cataract [A] *	19/381 (4.99%)	21/400 (5.25%)
Gastrointestinal disorders		
Diarrhoea [A] *	21/381 (5.51%)	21/400 (5.25%)
Infections and infestations		
Bronchitis [A] *	33/381 (8.66%)	27/400 (6.75%)
Cystitis [A] *	24/381 (6.3%)	18/400 (4.5%)
Influenza [A] *	42/381 (11.02%)	44/400 (11%)
Nasopharyngitis [A] *	79/381 (20.73%)	67/400 (16.75%)
Pneumonia [A] *	21/381 (5.51%)	24/400 (6%)
Upper Respiratory Tract Infection [A] *	20/381 (5.25%)	20/400 (5%)
Urinary Tract Infection [A] *	31/381 (8.14%)	23/400 (5.75%)
Metabolism and nutrition disorders		
Hypercholesterolaemia [A] *	36/381 (9.45%)	31/400 (7.75%)
Musculoskeletal and connective tissue disorders		
Arthralgia [A] *	57/381 (14.96%)	47/400 (11.75%)
Back Pain [A] *	64/381 (16.8%)	71/400 (17.75%)
Muscle Spasms [A] *	20/381 (5.25%)	8/400 (2%)
Musculoskeletal Pain [A] *	31/381 (8.14%)	21/400 (5.25%)
Osteoarthritis [A] *	29/381 (7.61%)	27/400 (6.75%)
Pain in Extremity [A] *	25/381 (6.56%)	27/400 (6.75%)
Nervous system disorders		
Dizziness [A] *	21/381 (5.51%)	8/400 (2%)

	2 mg Ibandronate q2mo	3 mg Ibandronate q3mo
	Affected/At Risk (%)	Affected/At Risk (%)
Psychiatric disorders		
Depression [A] *	15/381 (3.94%)	21/400 (5.25%)
Vascular disorders		
Hypertension [A] *	53/381 (13.91%)	59/400 (14.75%)

* Indicates events were collected by non-systematic methods.
A Term from vocabulary, MedDRA (11.1)

Limitations and Caveats

[Not specified]

More Information

Certain Agreements:

Principal Investigators are NOT employed by the organization sponsoring the study.

There IS an agreement between the Principal Investigator and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

The Study being conducted under this Agreement is part of the Overall Study. Investigator is free to publish in reputable journals or to present at professional conferences the results of the Study, but only after the first publication or presentation that involves the Overall Study. The Sponsor may request that Confidential Information be deleted and/or the publication be postponed in order to protect the Sponsor's intellectual property rights.

Results Point of Contact:

Name/Official Title: Medical Communications
Organization: Hoffmann-La Roche
Phone: 800-821-8590
Email: