

Trial record 1 of 2 for: CAMN107A2303

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## A Study of Imatinib Versus Nilotinib in Adult Patients With Newly Diagnosed Philadelphia Chromosome Positive (Ph+) Chronic Myelogenous Leukemia in Chronic Phase (CML-CP) (ENESTnd)

**This study is ongoing, but not recruiting participants.**

**Sponsor:**

Novartis Pharmaceuticals

**Information provided by (Responsible Party):**

Novartis ( Novartis Pharmaceuticals )

**ClinicalTrials.gov Identifier:**

NCT00471497

First received: May 7, 2007

Last updated: November 19, 2014

Last verified: November 2014

[History of Changes](#)

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### Purpose

In this study, the efficacy and safety of two nilotinib doses, 300 mg twice daily and 400 mg twice daily, will be compared with imatinib 400 mg once daily in newly diagnosed patients with Philadelphia chromosome-positive (Ph+) Chronic Myelogenous Leukemia in the chronic phase (CML-CP).

<u>Condition</u>	<u>Intervention</u>	<u>Phase</u>
Myelogenous Leukemia, Chronic	Drug: nilotinib Drug: imatinib	Phase 3

Study Type: **Interventional**

Study Design: **Allocation: Randomized**

**Endpoint Classification: Safety/Efficacy Study**

**Intervention Model: Parallel Assignment**

**Masking: Open Label**

**Primary Purpose: Treatment**

Official Title: **A Phase III Multi-center, Open-label, Randomized Study of Imatinib Versus Nilotinib in Adult Patients With Newly Diagnosed Philadelphia Chromosome Positive (Ph+) Chronic Myelogenous Leukemia in Chronic Phase (CML-CP)**

#### Resource links provided by NLM:

[Genetics Home Reference](#) related topics: [tetrasomy 18p](#)

[MedlinePlus](#) related topics: [Chronic Myeloid Leukemia](#) [Leukemia](#)

[Drug Information](#) available for: [Imatinib](#) [Imatinib mesylate](#) [Nilotinib](#)

[Genetic and Rare Diseases Information Center](#) resources: [Chronic Myeloid Leukemia](#) [Chronic Myeloproliferative Disorders](#)  
[Myeloid Leukemia](#)

[U.S. FDA Resources](#)

#### Further study details as provided by Novartis:

Primary Outcome Measures:

- Molecular Response Rate (MMR) at 12 Months [ Time Frame: Baseline, 12 months ] [ Designated as safety issue: No ]

Rate of MMR is defined as  $\leq 0.1\%$  BCR-ABL/ABL ratio by international scale (IS), measured by real-time quantitative polymerase chain

reaction (RQ-PCR) which corresponds to a  $\geq 3$  log reduction of BCR-ABL transcript from standardized baseline. BCR-ABL = fusion gene from BCR (breakpoint cluster region gene/BCR gene product) and ABL (Abelson protooncogene)

**Secondary Outcome Measures:**

- Rate of Durable MMR at 24 Months. [ Time Frame: Baseline, 24 months ] [ Designated as safety issue: No ]
- Rate Reduction in BCR-ABL Transcript Levels in Nilotinib Treatment Arms With Imatinib at 12 Months [ Time Frame: Baseline, 12 months ] [ Designated as safety issue: No ]
- Rate of Complete Cytogenetic Response (CCyR) in Nilotinib Treatment Arms With Imatinib at 12 Months [ Time Frame: Baseline, 12 months ] [ Designated as safety issue: No ]

Enrollment: 846  
 Study Start Date: July 2007  
 Estimated Study Completion Date: October 2018  
 Estimated Primary Completion Date: October 2018 (Final data collection date for primary outcome measure)

Arms	Assigned Interventions
Experimental: nilotinib 300mg bid (investigating arm)	Drug: nilotinib Nilotinib was supplied as 50 mg, 150 mg and 200 mg hard gelatin capsules and administered orally at 300 mg BID (twice a day) or 400 mg BID (twice a day) depending on the randomized dose. Other Name: AMN107
Experimental: Nilotinib 400 mg bid (investigating arm)	Drug: nilotinib Nilotinib was supplied as 50 mg, 150 mg and 200 mg hard gelatin capsules and administered orally at 300 mg BID (twice a day) or 400 mg BID (twice a day) depending on the randomized dose. Other Name: AMN107
Experimental: imatinib 400mg QD (control arm)	Drug: imatinib Imatinib was supplied as 100 mg and 400 mg tablets and administered orally at 400 mg QD (once a day). Other Name: STI571

**▶ Eligibility**

Ages Eligible for Study: 18 Years and older  
 Genders Eligible for Study: Both  
 Accepts Healthy Volunteers: No

**Criteria**

**Inclusion criteria:**

- Chronic myelogenous leukemia in chronic phase patients within the first 6 months of diagnosis.
- Diagnosis of chronic myelogenous leukemia in chronic phase with confirmation of Philadelphia chromosome

**Exclusion criteria:**

- Treatment with a tyrosine kinase inhibitor prior to study entry is not allowed except for no more than 2 weeks in duration of imatinib
- Any medical treatment for CML prior to study entry for longer than 2 weeks with the exception of hydroxyurea and/or anagrelide
- Uncontrolled or significant cardiovascular disease.
- Severe or uncontrolled medical conditions (i.e. uncontrolled diabetes, active or uncontrolled infection).
- Use of therapeutic coumarin derivatives (i.e., warfarin, acenocoumarol, phenprocoumon)
- Currently taking certain medications that could affect the rhythm of your heart.

Other protocol-defined inclusion/exclusion criteria may apply

**▶ Contacts and Locations**

Choosing to participate in a study is an important personal decision. Talk with your doctor and family members or friends about deciding to join a study. To learn more about this study, you or your doctor may contact the study research staff using the Contacts provided below. For general information, see [Learn About Clinical Studies](#).

Please refer to this study by its ClinicalTrials.gov identifier: NCT00471497

 [Show 220 Study Locations](#)

### Sponsors and Collaborators

Novartis Pharmaceuticals

### Investigators

Study Director: Novartis Pharmaceuticals Novartis Pharmaceuticals

### More Information

Additional Information:

Visit [NovartisClinicalTrials.com](http://NovartisClinicalTrials.com): Pre-qualify for a trial, and view a list of trials and participating study centers. 

No publications provided by Novartis

Additional publications automatically indexed to this study by ClinicalTrials.gov Identifier (NCT Number):

[Hughes TP, Hochhaus A, Kantarjian HM, Cervantes F, Guilhot F, Niederwieser D, le Coutre PD, Rosti G, Ossenkoppele G, Lobo C, Shibayama H, Fan X, Menssen HD, Kemp C, Larson RA, Saglio G. Safety and efficacy of switching to nilotinib 400 mg twice daily for patients with chronic myeloid leukemia in chronic phase with suboptimal response or failure on front-line imatinib or nilotinib 300 mg twice daily. \*Haematologica\*. 2014 Jul;99\(7\):1204-11. doi: 10.3324/haematol.2013.091272. Epub 2014 Feb 14.](#)

[Hughes TP, Saglio G, Kantarjian HM, Guilhot F, Niederwieser D, Rosti G, Nakaseko C, De Souza CA, Kalaycio ME, Meier S, Fan X, Menssen HD, Larson RA, Hochhaus A. Early molecular response predicts outcomes in patients with chronic myeloid leukemia in chronic phase treated with frontline nilotinib or imatinib. \*Blood\*. 2014 Feb 27;123\(9\):1353-60. doi: 10.1182/blood-2013-06-510396. Epub 2013 Dec 11.](#)

[Hochhaus A, Saglio G, Larson RA, Kim DW, Etienne G, Rosti G, De Souza C, Kurokawa M, Kalaycio ME, Hoenekopp A, Fan X, Shou Y, Kantarjian HM, Hughes TP. Nilotinib is associated with a reduced incidence of BCR-ABL mutations vs imatinib in patients with newly diagnosed chronic myeloid leukemia in chronic phase. \*Blood\*. 2013 May 2;121\(18\):3703-8. doi: 10.1182/blood-2012-04-423418. Epub 2013 Mar 15.](#)

[Branford S, Kim DW, Soverini S, Haque A, Shou Y, Woodman RC, Kantarjian HM, Martinelli G, Radich JP, Saglio G, Hochhaus A, Hughes TP, Müller MC. Initial molecular response at 3 months may predict both response and event-free survival at 24 months in imatinib-resistant or -intolerant patients with Philadelphia chromosome-positive chronic myeloid leukemia in chronic phase treated with nilotinib. \*J Clin Oncol\*. 2012 Dec 10;30\(35\):4323-9. doi: 10.1200/JCO.2011.40.5217. Epub 2012 Oct 29.](#)

[Larson RA, Yin OQ, Hochhaus A, Saglio G, Clark RE, Nakamae H, Gallagher NJ, Demirhan E, Hughes TP, Kantarjian HM, le Coutre PD. Population pharmacokinetic and exposure-response analysis of nilotinib in patients with newly diagnosed Ph+ chronic myeloid leukemia in chronic phase. \*Eur J Clin Pharmacol\*. 2012 May;68\(5\):723-33. doi: 10.1007/s00228-011-1200-7. Epub 2011 Dec 30.](#)

[Kantarjian HM, Hochhaus A, Saglio G, De Souza C, Flinn IW, Stenke L, Goh YT, Rosti G, Nakamae H, Gallagher NJ, Hoenekopp A, Blakesley RE, Larson RA, Hughes TP. Nilotinib versus imatinib for the treatment of patients with newly diagnosed chronic phase, Philadelphia chromosome-positive, chronic myeloid leukaemia: 24-month minimum follow-up of the phase 3 randomised ENESTnd trial. \*Lancet Oncol\*. 2011 Sep;12\(9\):841-51. doi: 10.1016/S1470-2045\(11\)70201-7. Epub 2011 Aug 17. Erratum in: \*Lancet Oncol\*. 2011 Oct;12\(11\):989.](#)

[Cortes JE, Hochhaus A, le Coutre PD, Rosti G, Pinilla-Ibarz J, Jabbour E, Gillis K, Woodman RC, Blakesley RE, Giles FJ, Kantarjian HM, Baccarani M. Minimal cross-intolerance with nilotinib in patients with chronic myeloid leukemia in chronic or accelerated phase who are intolerant to imatinib. \*Blood\*. 2011 May 26;117\(21\):5600-6. doi: 10.1182/blood-2010-11-318949. Epub 2011 Apr 5.](#)

[Saglio G, Kim DW, Issaragrisil S, le Coutre P, Etienne G, Lobo C, Pasquini R, Clark RE, Hochhaus A, Hughes TP, Gallagher N, Hoenekopp A, Dong M, Haque A, Larson RA, Kantarjian HM; ENESTnd Investigators. Nilotinib versus imatinib for newly diagnosed chronic myeloid leukemia. \*N Engl J Med\*. 2010 Jun 17;362\(24\):2251-9. doi: 10.1056/NEJMoa0912614. Epub 2010 Jun 5.](#)

Responsible Party: Novartis ( Novartis Pharmaceuticals )

ClinicalTrials.gov Identifier: [NCT00471497](#) [History of Changes](#)

Other Study ID Numbers: **CAMN107A2303**, 2007-000208-34

Study First Received: May 7, 2007

Results First Received: April 10, 2013

Last Updated: November 19, 2014

Health Authority: United States: Food and Drug Administration  
Argentina: Administracion Nacional de Medicamentos, Alimentos y Tecnologia Medica  
Austria: Ethikkommission  
Belgium: Federal Agency for Medicinal Products and Health Products  
Brazil: Ministry of Health  
Canada: Health Canada  
Colombia: INVIMA Instituto Nacional de Vigilancia de Medicamentos y Alimentos

Czech Republic: State Institute for Drug Control  
 Denmark: Danish Medicines Agency  
 Egypt: Ministry of Health and Population  
 Finland: Finnish Medicines Agency  
 France: Afssaps - Agence française de sécurité sanitaire des produits de santé (Saint-Denis)  
 Germany: Federal Institute for Drugs and Medical Devices  
 Hong Kong: Department of Health  
 Hungary: Research Ethics Medical Committee  
 Italy: Ministry of Health  
 Japan: Pharmaceuticals and Medical Devices Agency  
 Korea: Food and Drug Administration  
 Malaysia: Ministry of Health  
 Mexico: Ministry of Health  
 Netherlands: Medicines Evaluation Board (MEB)  
 Norway: Norwegian Medicines Agency  
 Poland: Ministry of Health  
 Russia: Ministry of Health of the Russian Federation  
 Singapore: Clinical Trials & Epidemiology Research Unit (CTERU)  
 Slovakia: State Institute for Drug Control  
 South Korea: Korea Food and Drug Administration (KFDA)  
 Spain: Agencia Española de Medicamentos y Productos Sanitarios  
 Sweden: Medical Products Agency  
 Switzerland: Swissmedic  
 Taiwan: Department of Health  
 Thailand: Food and Drug Administration  
 Turkey: Ministry of Health  
 United Kingdom: Medicines and Healthcare Products Regulatory Agency  
 Venezuela: Ministry of Health and Social Development

Keywords provided by Novartis:

leukemia	bone marrow disease
bone marrow	chronic myeloid leukemia
leukemia symptoms	blood cancer symptoms
lukemia	white blood cell diseases
cml	chronic myelogenous leukemia
complete blood count	leukemia treatment
lymphocyte	leukemia facts
blood cancer	leucemia
leukocytes	facts about leukemia
chronic leukemia	myelogenous leukemia
bone marrow biopsy	newly diagnosed CML
leukemia research	newly diagnosed Philadelphia chromosome positive (Ph+) chronic
leukemia cells	myelogenous leukemia in chronic phase (CML-CP)

Additional relevant MeSH terms:

Abnormal Karyotype	Neoplasms by Histologic Type
Leukemia	Pathologic Processes
Leukemia, Myelogenous, Chronic, BCR-ABL Positive	Translocation, Genetic
Leukemia, Myeloid	Imatinib
Philadelphia Chromosome	Antineoplastic Agents
Bone Marrow Diseases	Enzyme Inhibitors
Chromosome Aberrations	Molecular Mechanisms of Pharmacological Action
Hematologic Diseases	Pharmacologic Actions
Myeloproliferative Disorders	Protein Kinase Inhibitors
Neoplasms	Therapeutic Uses

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