

Missing Milestones Has Consequences



RESPONSE MATTERS.

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02/19 PK1903971504



- Product Information
- Safety Information
- AE Reporting
- MSL Connect
- Study Design
- Abbreviations & References

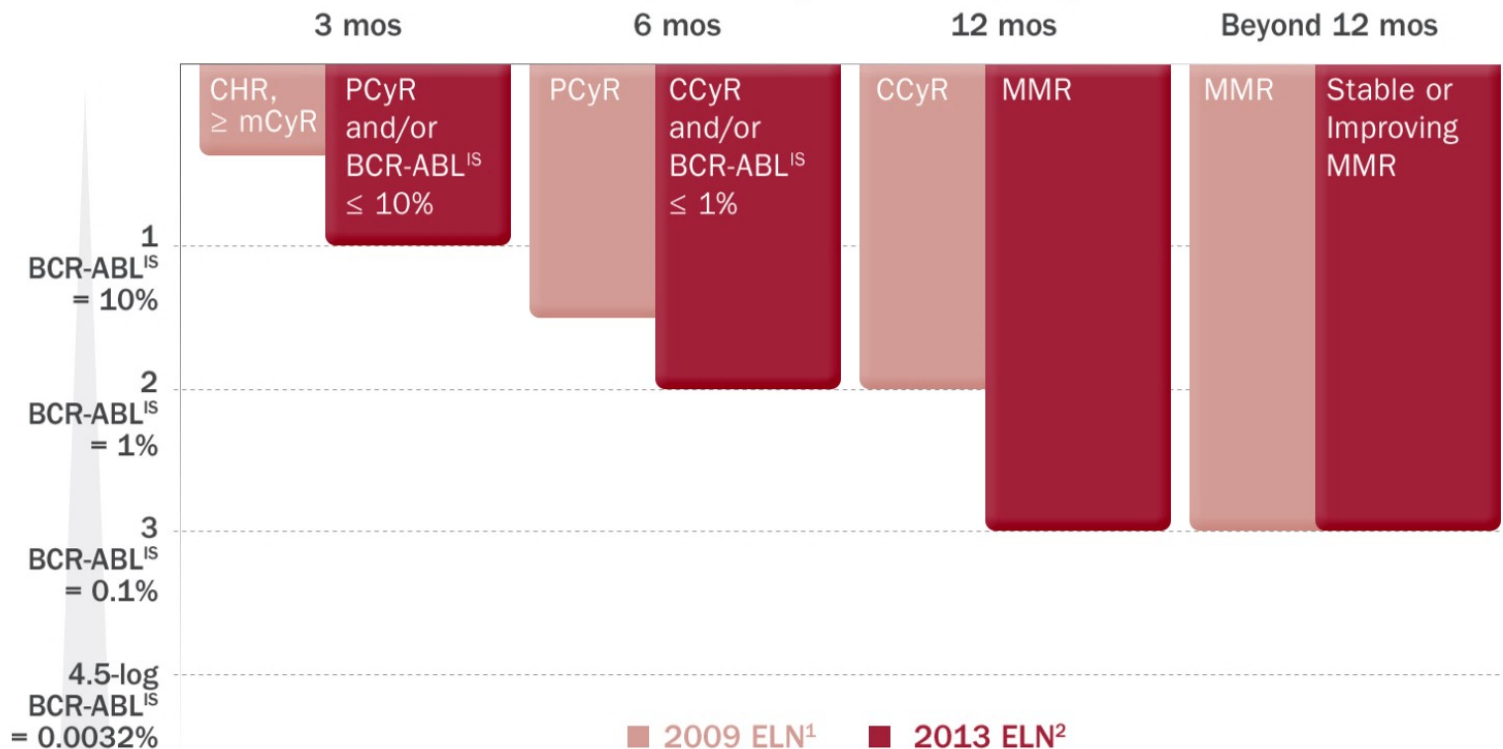


MISSING MILESTONES HAS CONSEQUENCES

European LeukemiaNet (ELN) Now Recommends Earlier, Deeper Response

In 2013, ELN changed the recommended optimal response milestones for patients with Ph+ CML

ELN Definition of Optimal Response in Newly Diagnosed Patients



How are your newly diagnosed patients doing meeting these milestones?

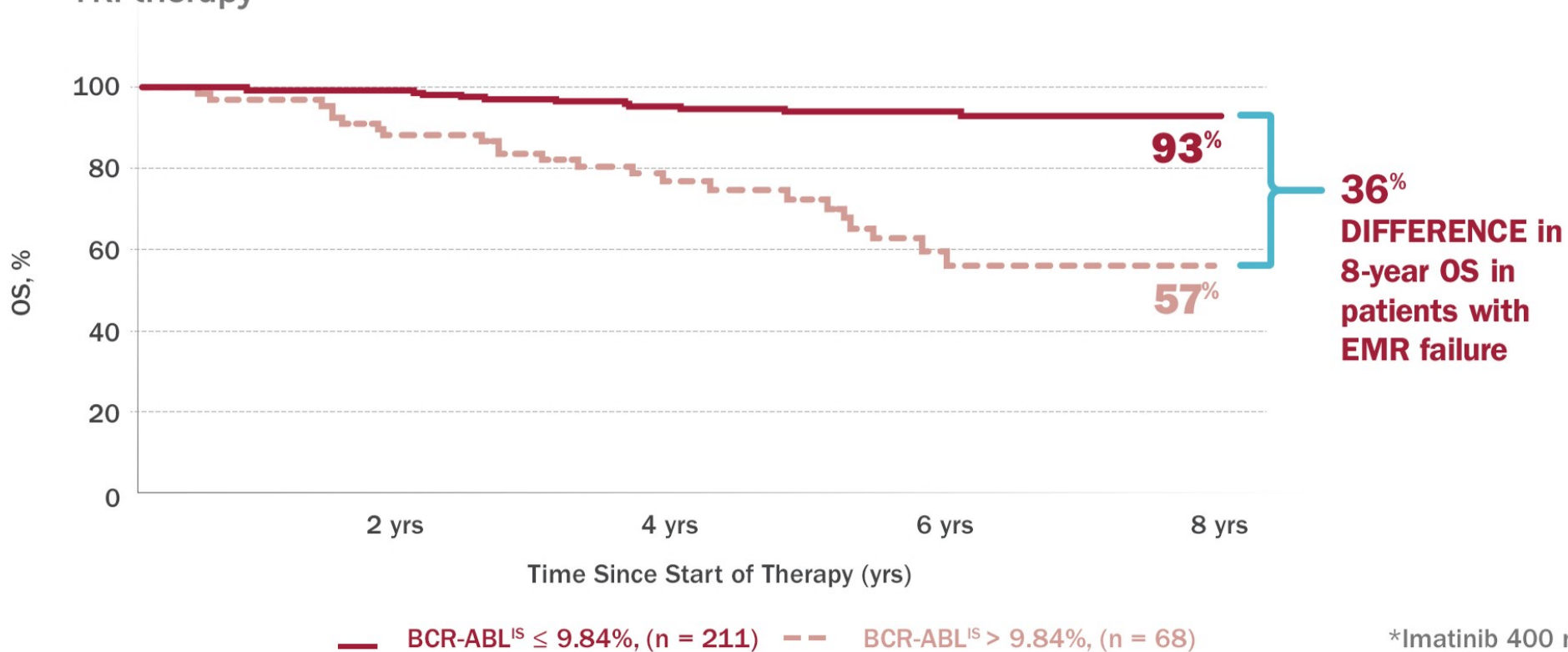
BCR-ABL^{IS} ≤ 10% at 3 months is also referred to as early molecular response (EMR).³

MISSING MILESTONES HAS CONSEQUENCES

Achieving EMR is Associated With Improved Overall Survival¹

IN A RETROSPECTIVE STUDY BY MARIN ET AL

EMR at 3 months was predictive of long-term survival in newly diagnosed CML-CP patients on TKI therapy*



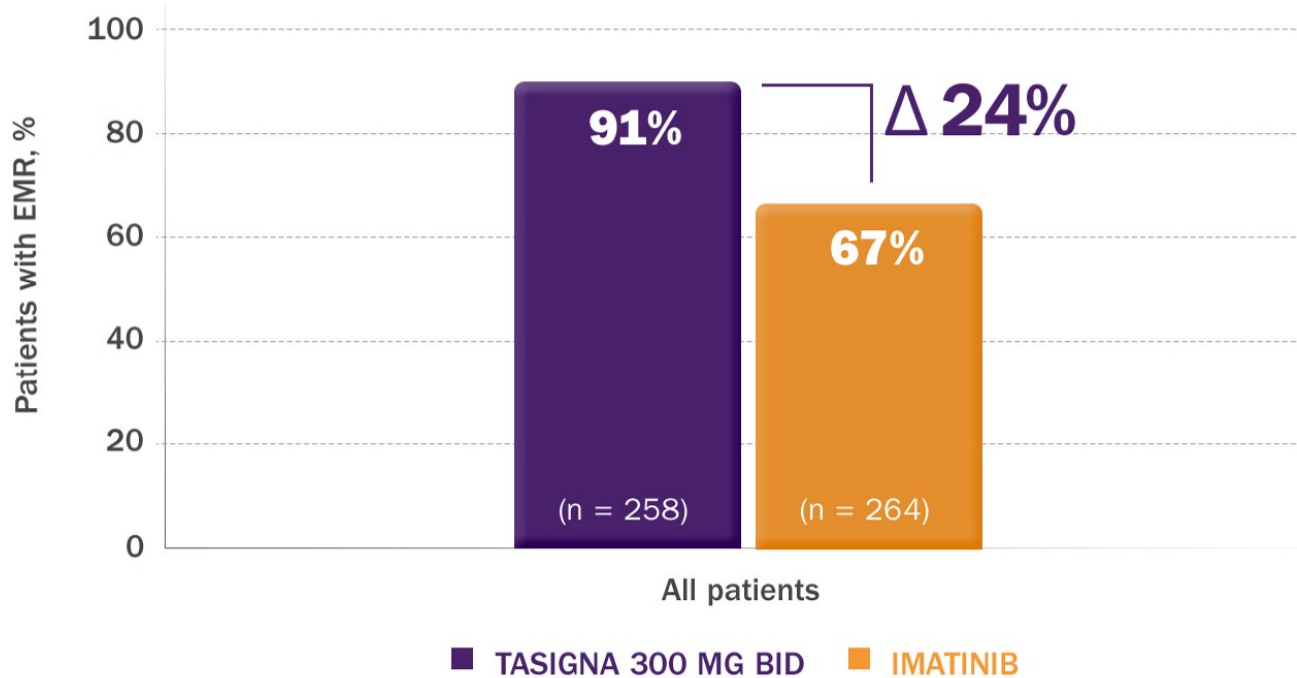


EARLIER RESPONSE MATTERS

More Patients Achieved EMR With Tasigna vs Imatinib^{1,2}

ENESTND LANDMARK ANALYSIS

In a retrospective analysis in ENESTnd evaluating EMR at 3 months: **MORE PATIENTS ACHIEVED EMR** with Tasigna vs imatinib, regardless of Sokal score



3X as many patients failed to achieve EMR with imatinib vs Tasigna (33% vs 9%)

◀ VIEW ADDITIONAL DATA

ENESTnd participants without evaluable PCR samples at 3 months were excluded from the Landmark Analysis.

Tasigna 400 mg BID ENESTnd study arm is not reported here as this dose is not indicated for newly diagnosed patients.

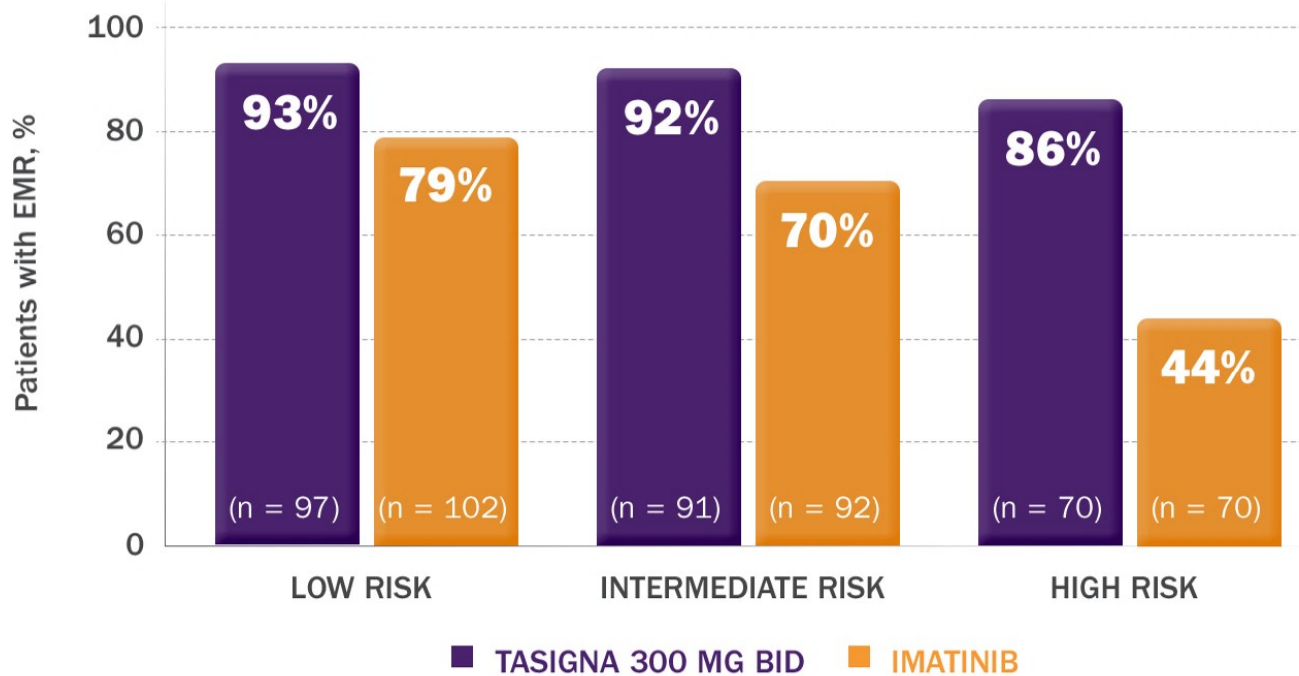


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[VIEW ALL PATIENTS](#)

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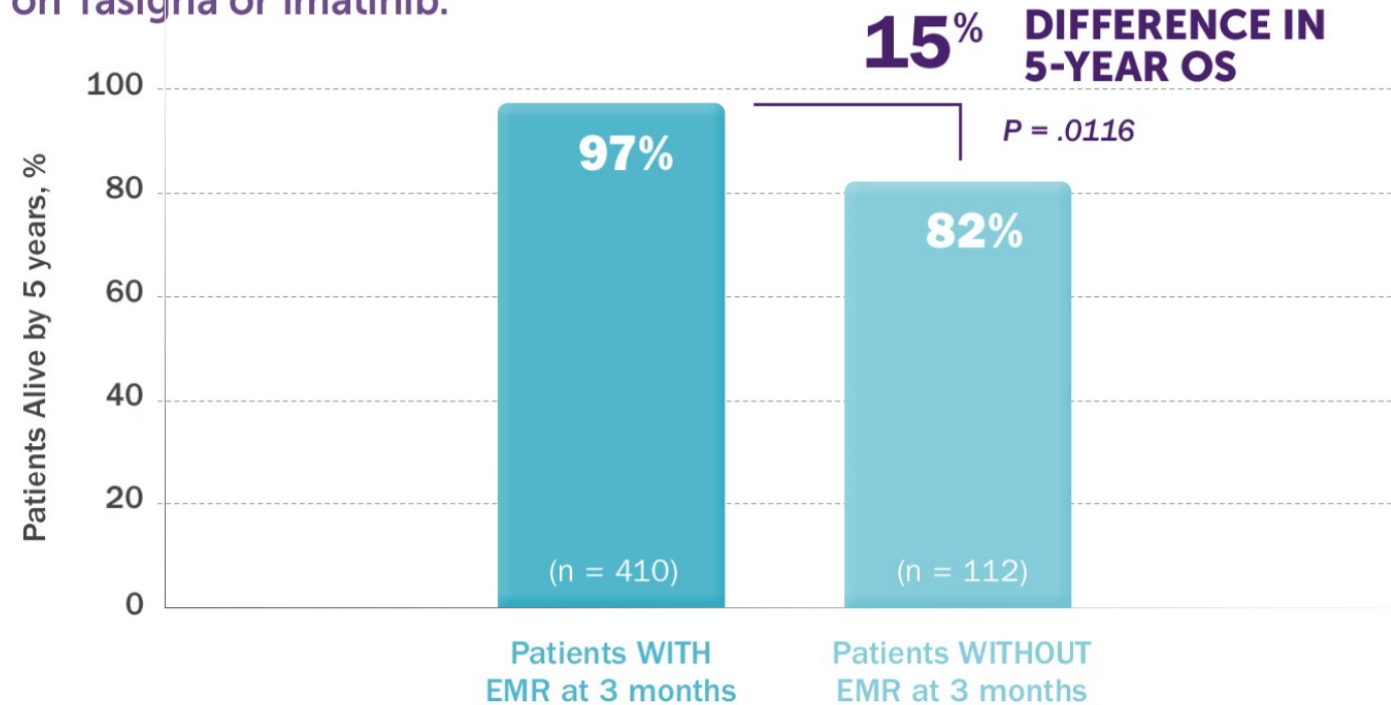


EARLIER RESPONSE MATTERS

Patients Who Achieved EMR Showed Greater Overall Survival¹

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In a retrospective analysis in ENESTnd evaluating EMR at 3 months in patients on Tasigna or imatinib:



Patients who achieved EMR showed greater OS¹

VIEW LINE GRAPH

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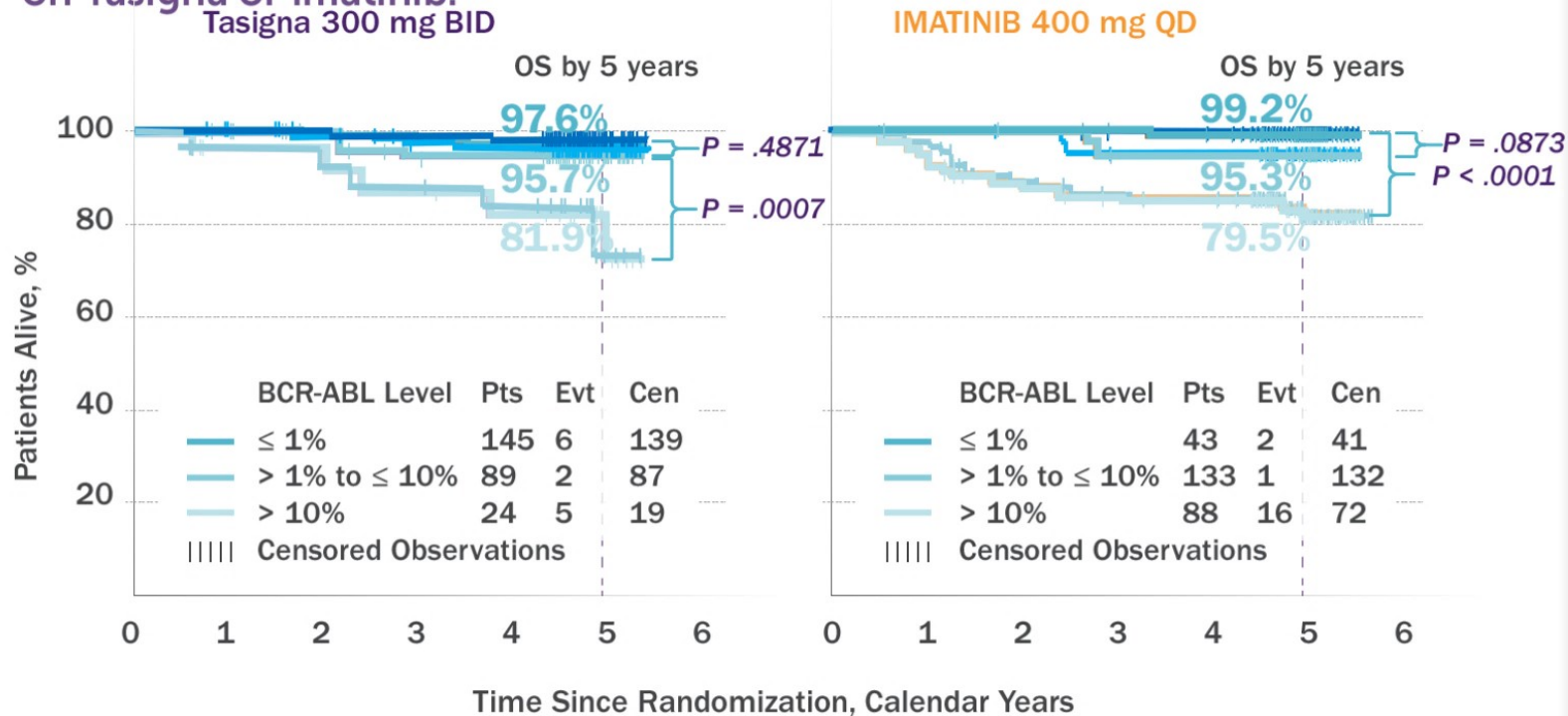


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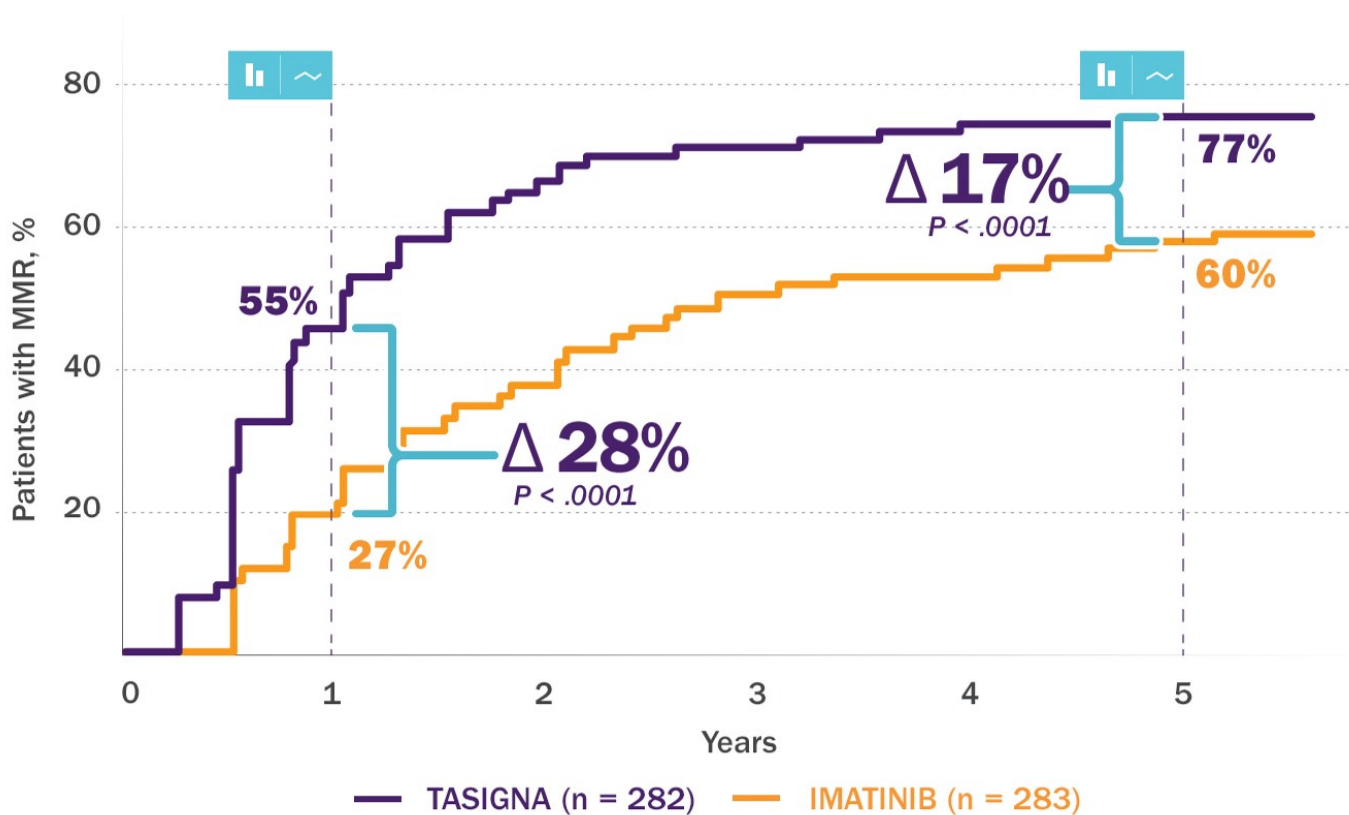


DEEPER RESPONSE MATTERS

More Patients Achieved MMR With Tasigna vs Imatinib¹

ENESTND 5-YEAR FOLLOW-UP

In ENESTnd assessment of the rates of MMR showed:



The imatinib arm **DID NOT CATCH UP** to the Tasigna arm by 5 years

MMR rates remained **higher** by 5 years with Tasigna vs imatinib

Tasigna 400 mg BID ENESTnd study arm is not reported here as this dose is not indicated for newly diagnosed patients.

Cumulative response rates by 5 years were calculated based on sixty 28-day cycles in a database with 60 calendar months of follow-up.

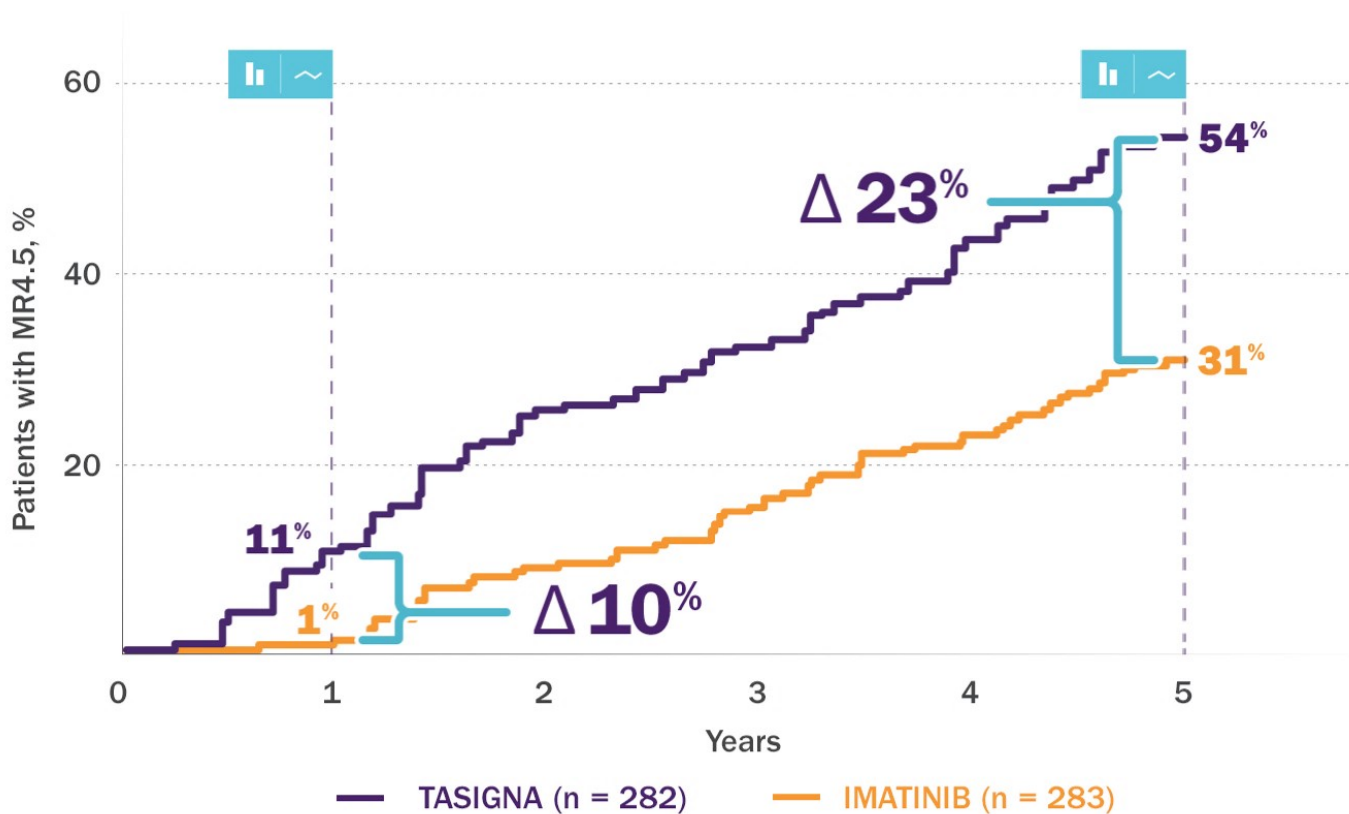


DEEPER RESPONSE MATTERS

More Patients Achieved MR4.5 With Tassigna vs Imatinib¹

ENESTND 5-YEAR FOLLOW-UP

In ENESTnd assessment of the rates of MR4.5 showed:



The imatinib arm DID NOT CATCH UP to the Tassigna arm by 5 years

23% more patients achieved MR4.5 by 5 years with Tassigna vs imatinib

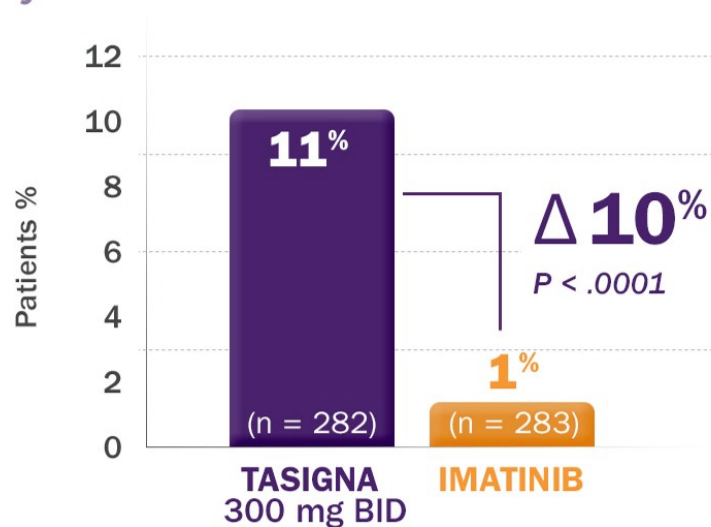
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DEEPER RESPONSE MATTERS

More Patients Achieved MR4.5 With Tasigna vs Imatinib¹

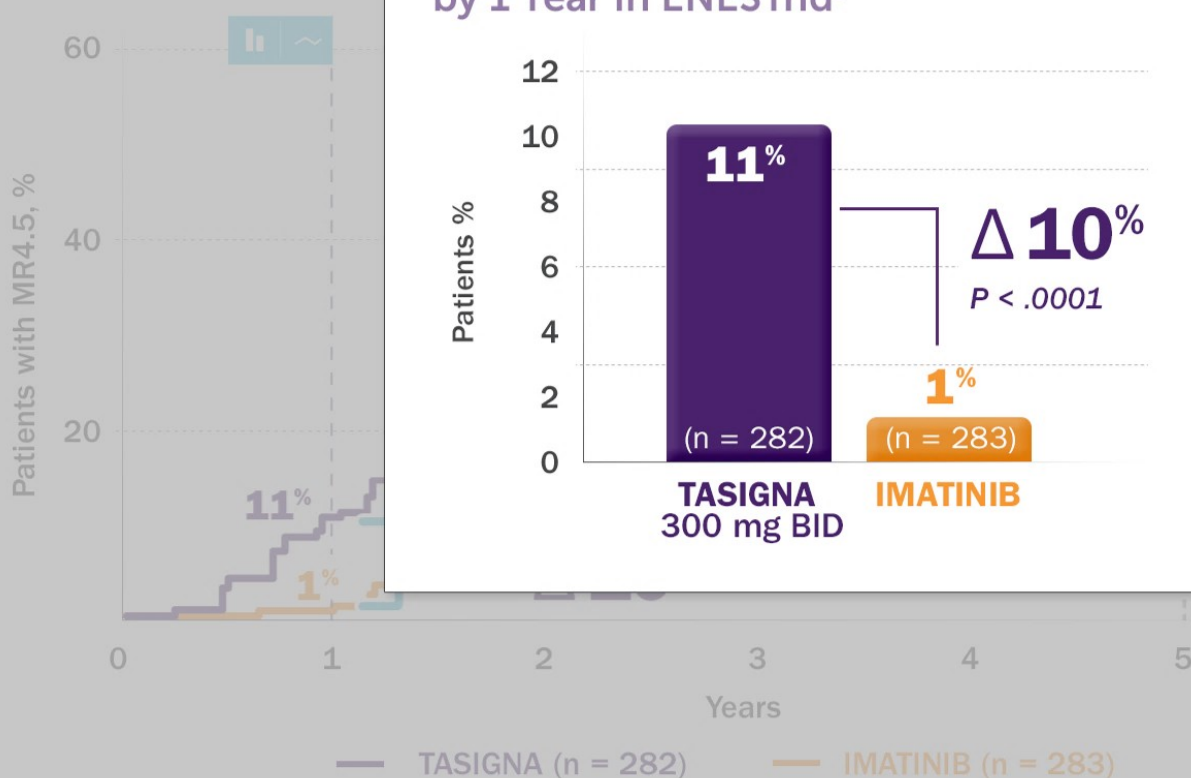
Percent of Patients With MR4.5 by 1 Year in ENESTnd¹



More patients achieved MR4.5 in the first 12 months with Tasigna¹

ENESTND 5-YEAR

In ENESTnd assess



the imatinib arm
D NOT
ATCH UP
the Tasigna arm
5 years

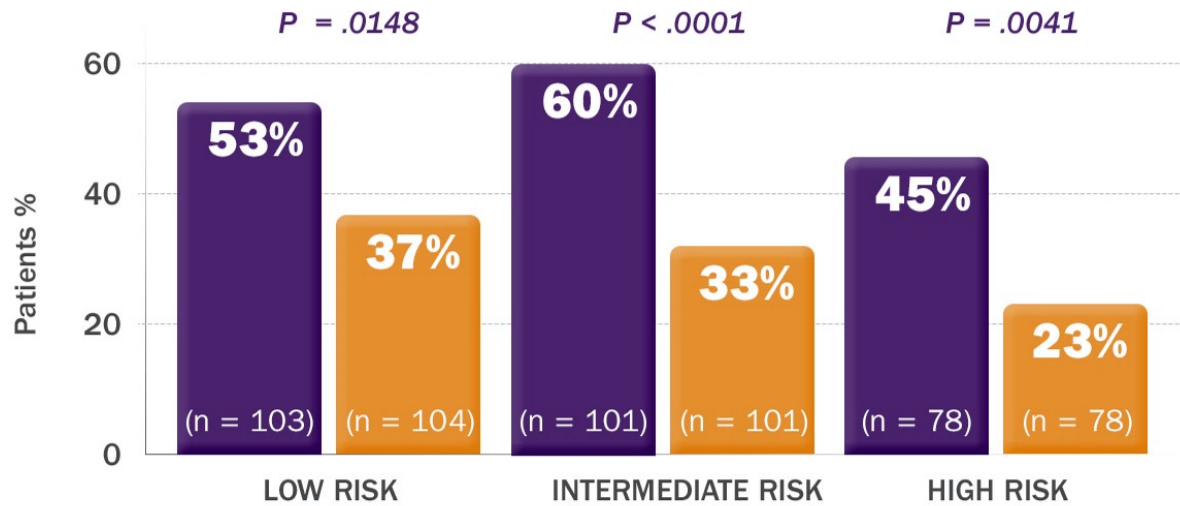
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DEEPER RESPONSE MATTERS

Percent of Patients With MR4.5 by 5 Years in ENESTnd²



Regardless of Sokal risk score, Tasigna resulted in higher rates of MR4.5 by 5 years compared with imatinib²

VIEW ALL PATIENTS

— TASIGNA (n = 282) — IMATINIB (n = 283)

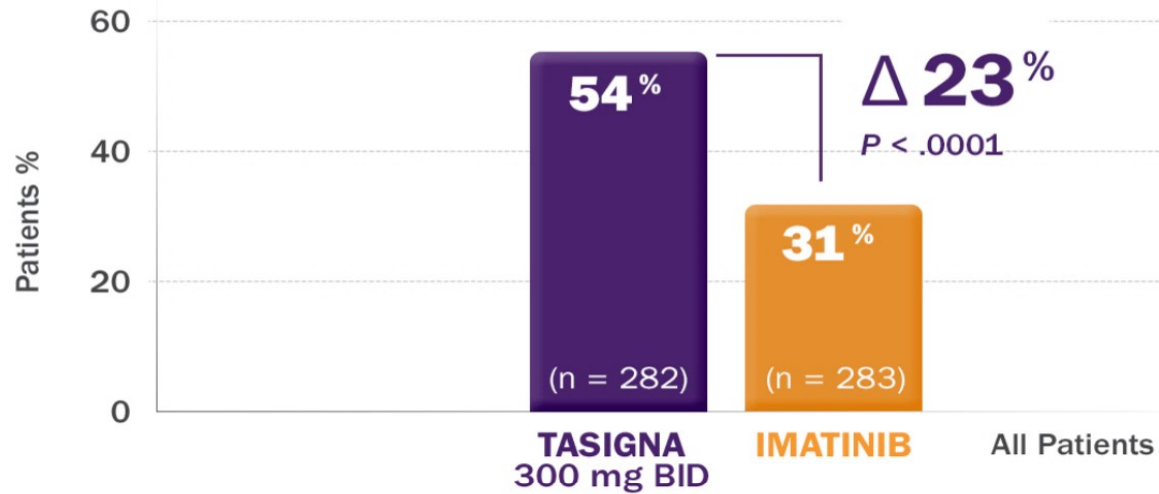
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DEEPER RESPONSE MATTERS

MORE PATIENTS ACHIEVED MR4.5 with Tasigna vs imatinib, regardless of Sokal score²

Percent of Patients With MR4.5 by 5 Years in ENESTnd^{1,2}



Regardless of Sokal risk score, Tasigna resulted in higher rates of MR4.5 by 5 years compared with imatinib²

VIEW ADDITIONAL DATA

— TASIGNA (n = 282) — IMATINIB (n = 283)

were calculated based on sixty 28-day cycles in a database with 60 calendar months of follow-up.



FEWER PROGRESSIONS

MR4.5 Matters When it Comes To Progression¹

CML-STUDY IV

With a median follow-up of 3 years, assessment of progressions according to response level showed that no patient with confirmed MR4.5 progressed (n = 1524)



Diagnosis



EMR



MMR



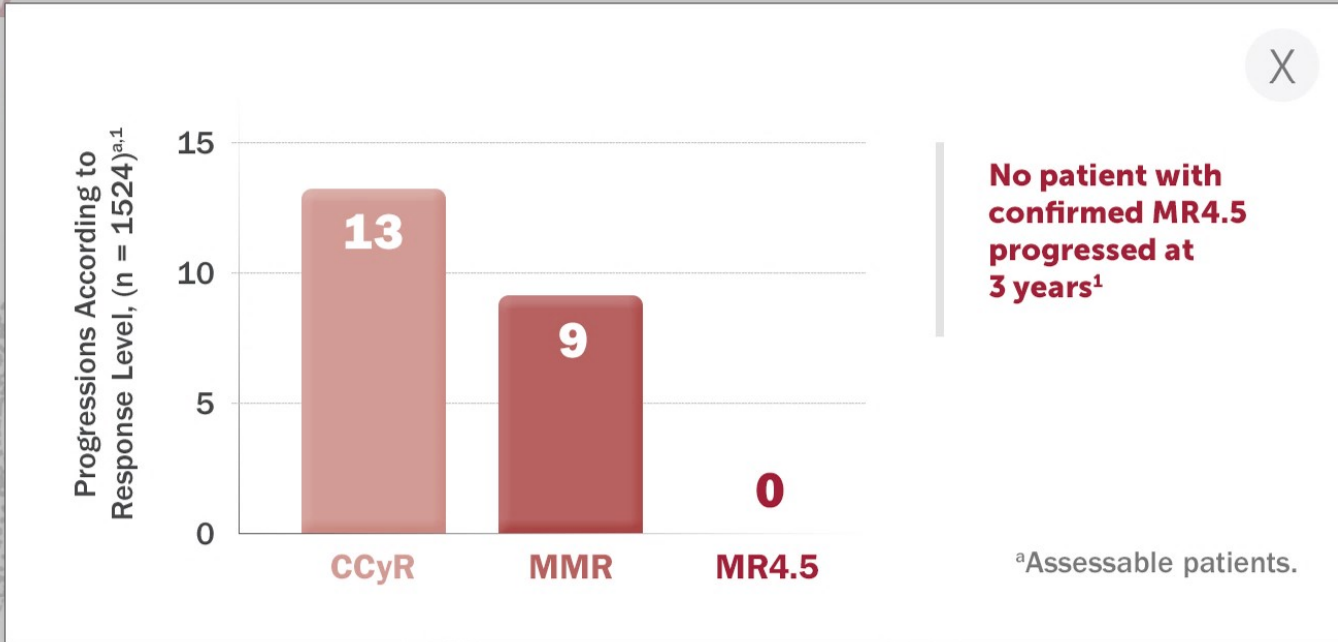
MR4.5



FEWER PROGRESSIONS

MR4.5 Matters When it Comes To Progression¹

CML-STUDY IV
With a median
response level



Diagnosis

EMR

MMR

MR4.5



FEWER PROGRESSIONS

Fewer Patients Progressed With Tasigna vs Imatinib²

ENESTND 5-YEAR FOLLOW UP

In ENESTnd analysis of progressions to AP/BC while on study drug showed:

99% of patients treated with Tasigna 300 mg BID

REMAINED IN CHRONIC PHASE (n = 282)



NO NEW PROGRESSIONS while on study drug since the 2-year analysis

No patient with MR4.5 in any arm progressed³

Progression to AP/BC events included progressions to AP/BC (excluding clonal evolution) or CML-related deaths occurring on study drug.

Tasigna 400 mg BID ENESTnd study arm is not reported here as this dose is not indicated for newly diagnosed patients.



FEWER PROGRESSIONS

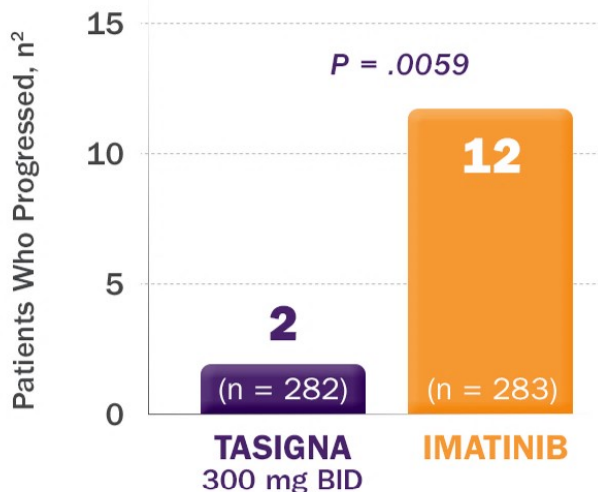
Fewer Patients Progressed With Tasigna vs Imatinib²

ENESTND 5-YEAR FOLLOW-UP

In ENESTnd and ENESTnd-2, the study drug showed:

9

REMA



No patient with MR4.5 in any arm progressed³

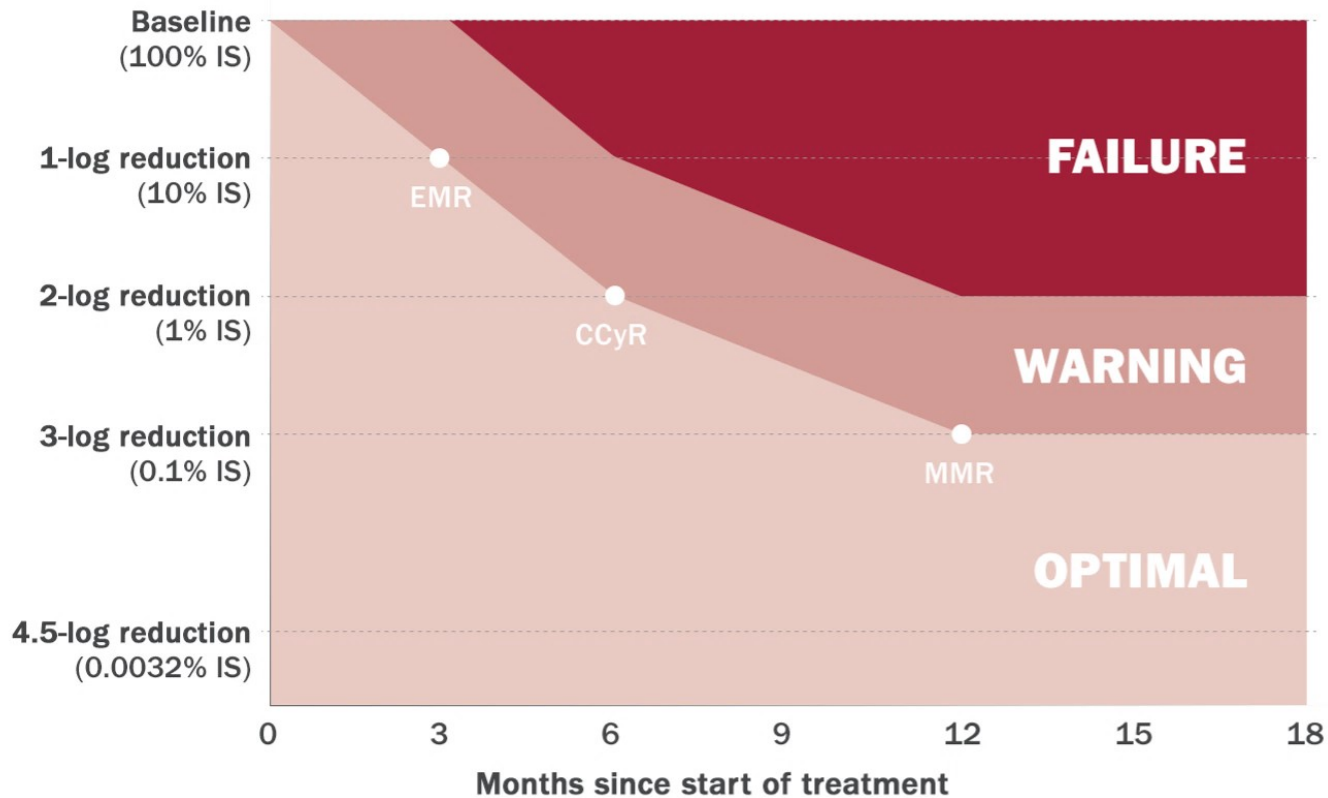
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Current ELN Recommendations for Switching¹

2013 ELN recommended treatment response milestones¹



How do your patients respond to treatment after switching for treatment failure?

Does increased monitoring in patients with a warning response allow you to act faster in the event of treatment failure?



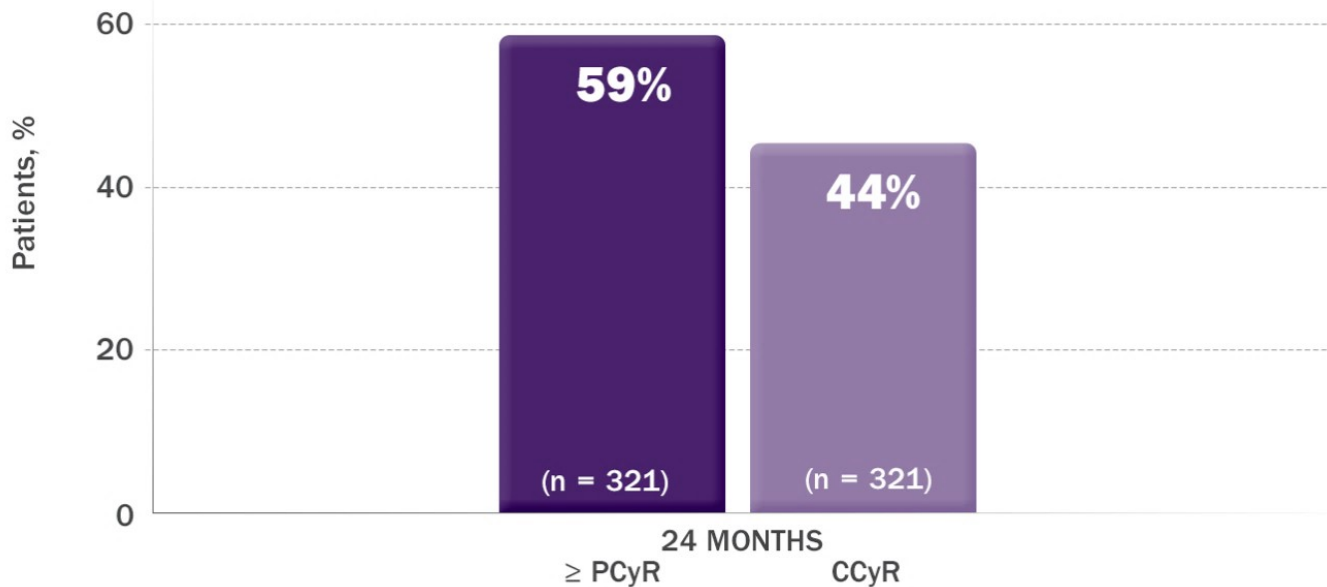
SWITCH

Responses in Patients Switched to Tasigna After Experiencing Resistance or Intolerance to Imatinib²

2101 Study

After switching to Tasigna in patients resistant and intolerant to imatinib:

Response Rate on Tasigna 400 mg BID (n = 321)



ACHIEVING OPTIMAL* RESPONSES

in the second line is important to prevent progression to AP/BC¹

Most responders achieved ≥ PCyR within 3 months.

In patients who achieved CCyR, the median time to ACHIEVE CCyR was approximately 3 months.

*According to ELN. ELN definition of optimal response to second-line treatment at 3 months is > mCyR (Ph+ < 65%) and/or BCR-ABL ≤10%.



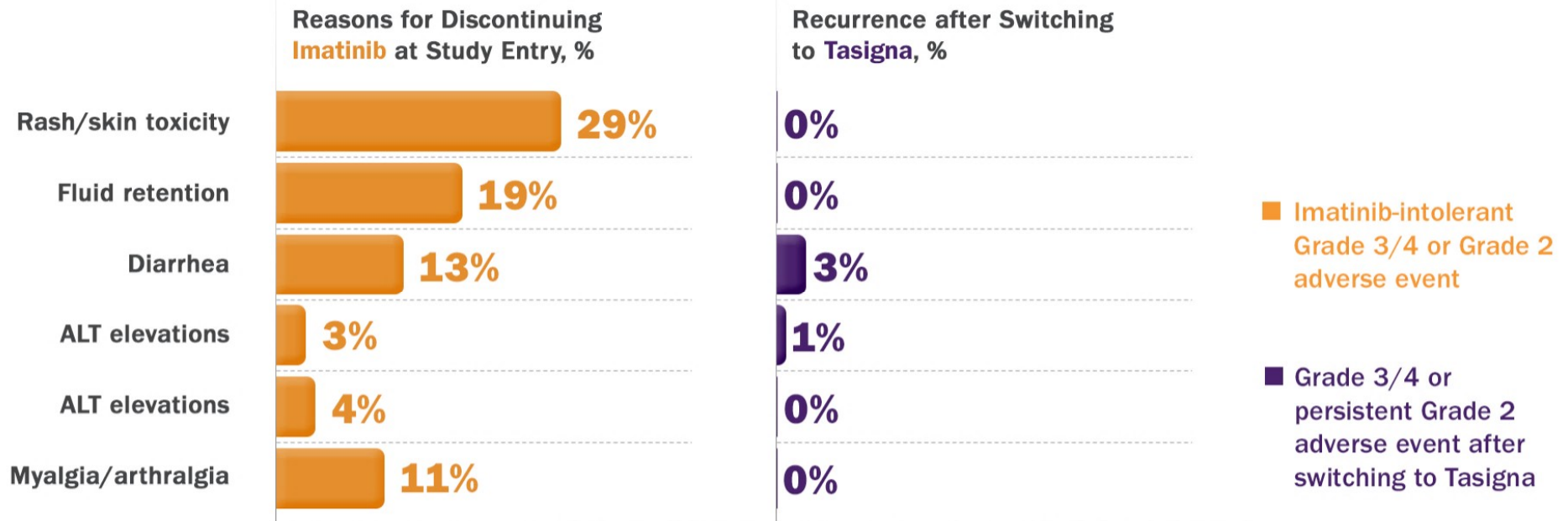
SWITCH

Recurrence of Adverse Events After Switch to Tasigna³

2101 STUDY

In the phase 2 study 2101 after switching to Tasigna 400 mg BID in imatinib-resistant or –intolerant patients:

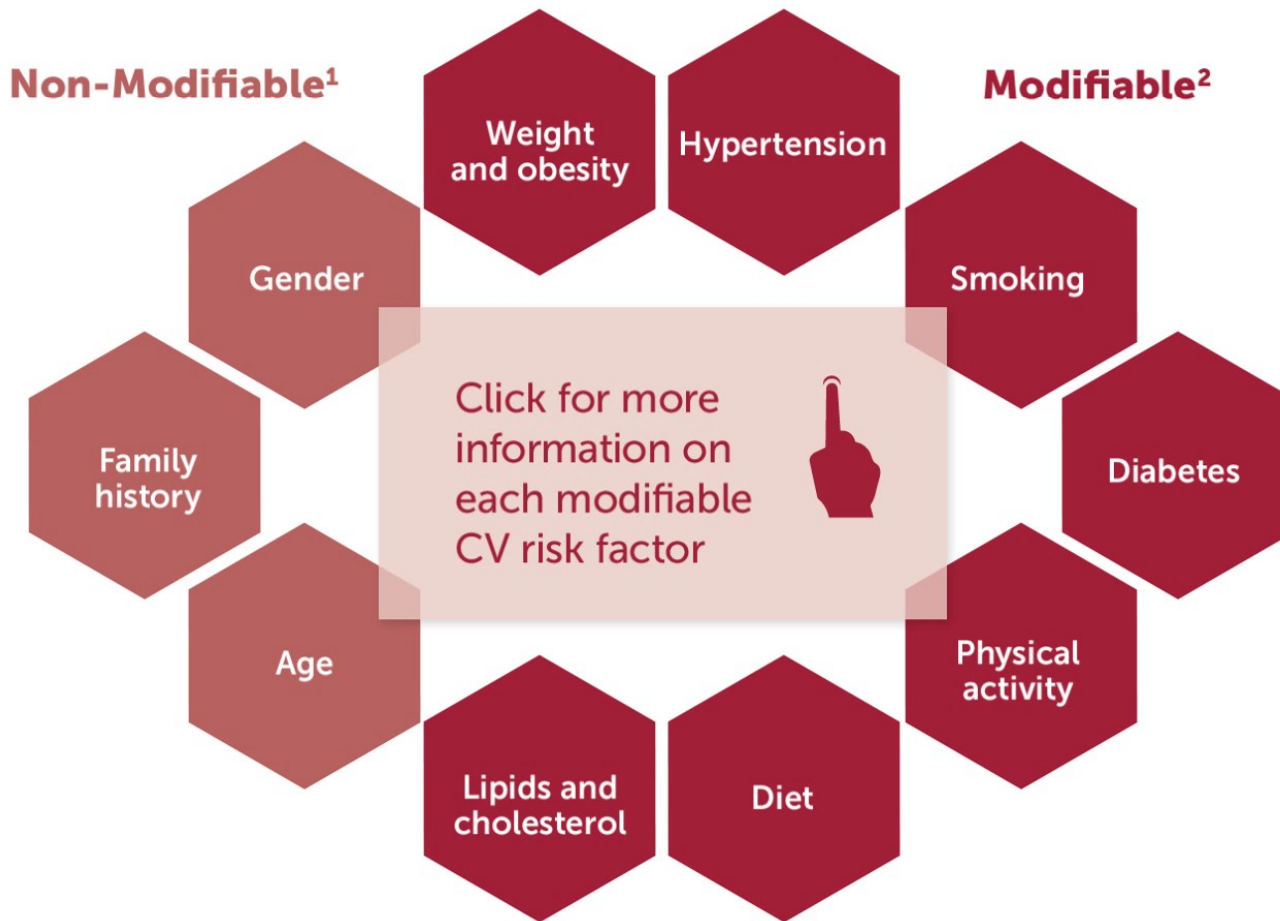
Nonhematologic AEs for CML-CP (n = 95)



Modifiable and Non-Modifiable CV Risk Factors

The choice of treatment is an individualized treatment decision based on a **benefit:risk assessment**

Non-Modifiable¹



Modifiable²

CVEs have been reported in patients with Ph+ CML treated with **ALL APPROVED TKIS²⁻⁶**

Some CV risks can be managed¹

Chronic management with any TKI therapy requires close monitoring²⁻⁶

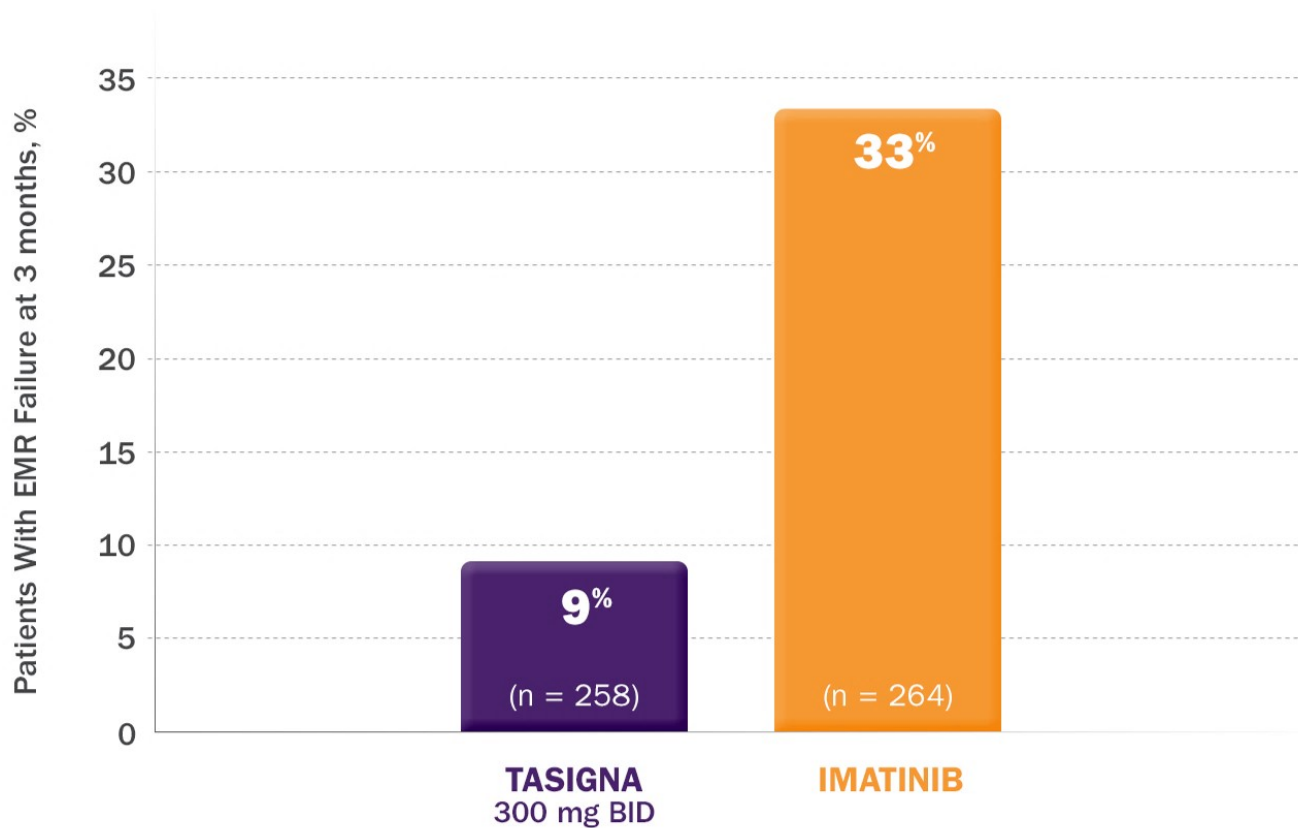
All patients treated with TKIs should be assessed for risk factors of CV disease, regularly monitored and, if appropriate, managed by standard guidelines.

FIRST-LINE CHOICE MATTERS

Your First Treatment in CML Matters

ENESTnd Landmark Analysis¹

3X as many patients on imatinib failed to achieve EMR at 3 months vs Tascigna in an analysis in ENESTnd

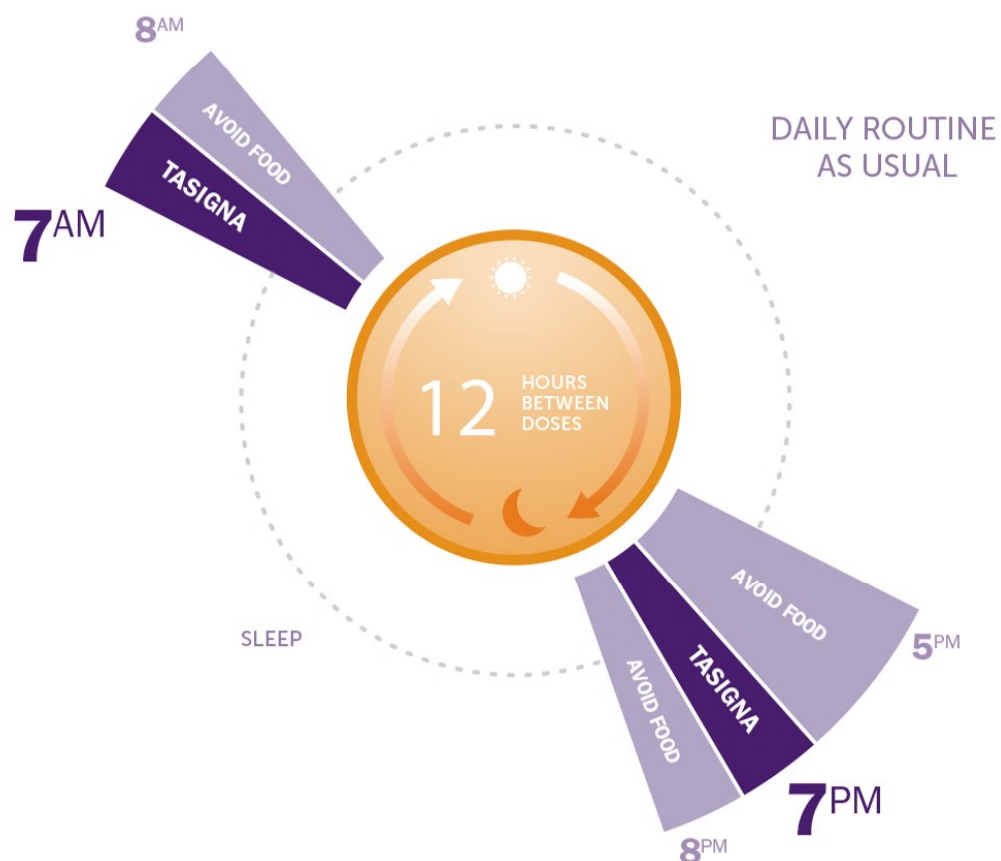


More patients
achieved EMR with
Tascigna vs imatinib¹

ROUTINE DAILY DOSING

A Dosing Regimen That Fits Into a Daily Routine¹

Patients should take **2 Tasigna capsules in the morning** and **2 capsules in the evening**. Doses should be about **12 hours apart**.



If a patient misses a dose, he or she should not take another dose but rather wait to take the next scheduled dose

Patients must avoid food for 2 hours before and 1 hour after each dose

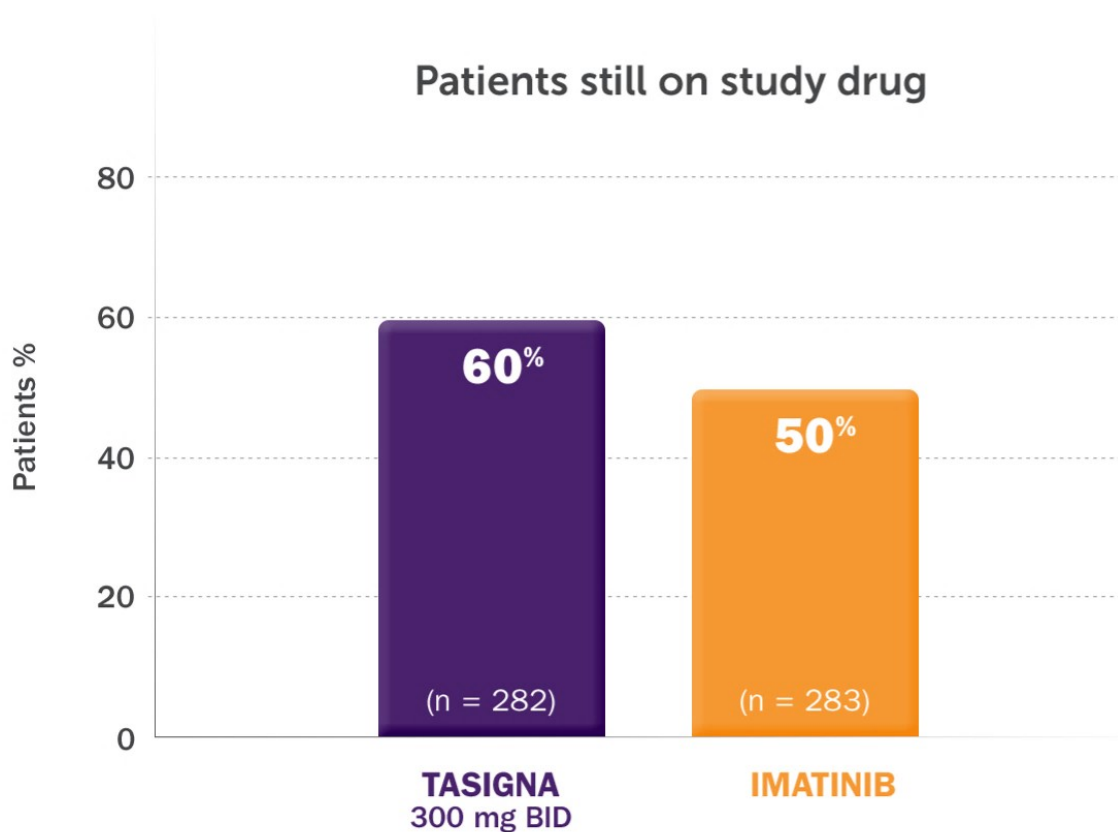
For full dosing information including dose adjustments please see the full prescribing information.

FEWER DISCONTINUATIONS

Starting With Tasigna Resulted in Fewer Discontinuations Compared With Imatinib*^{1,2}

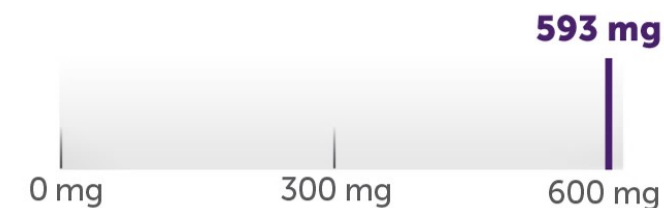
ENESTnd 5-Year Follow-up¹

Fewer patients discontinued treatment with Tasigna vs imatinib



FEWER DISCONTINUATIONS with Tasigna vs imatinib¹

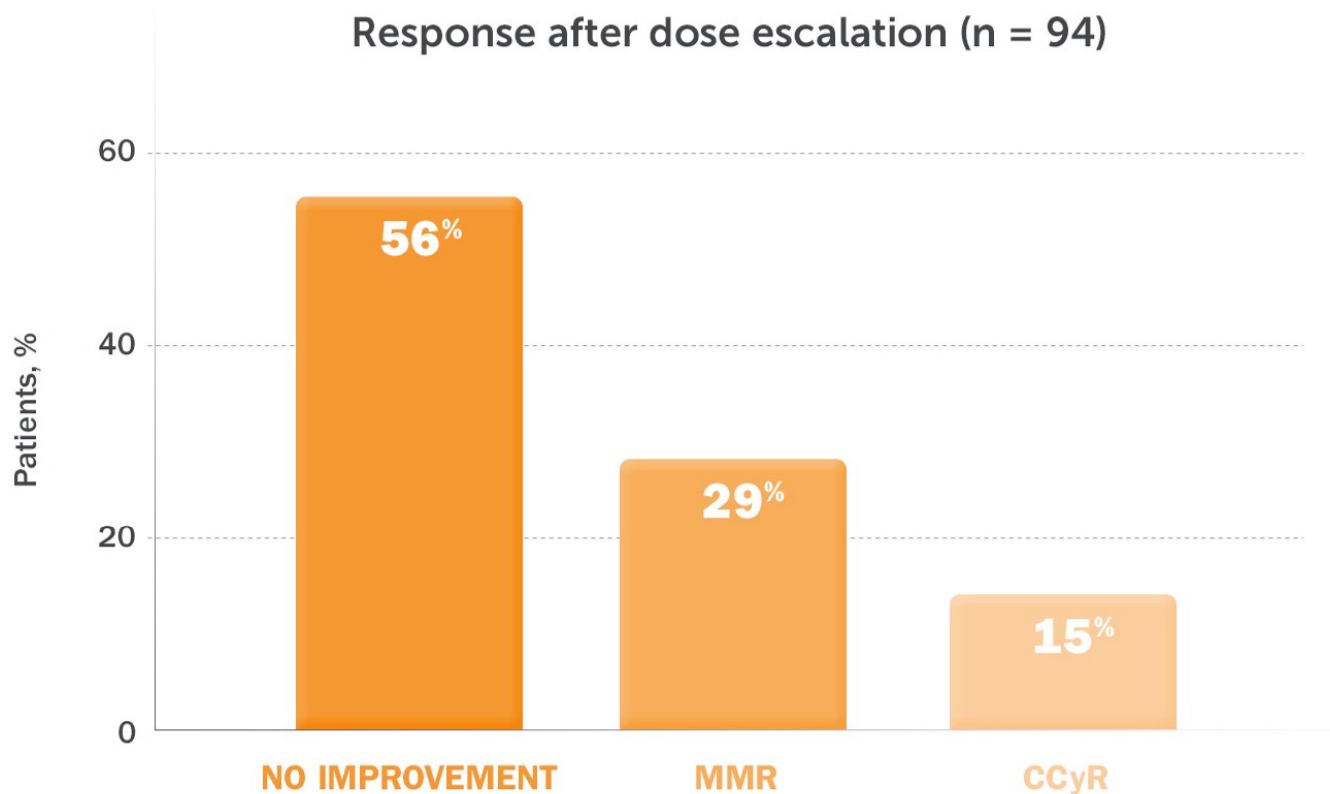
99% OF THE MEDIAN DOSE of Tasigna 300 mg BID was taken in ENESTnd



*Discontinuations for any reason

Does High-Dose Imatinib Improve Response?

In ENESTnd, patients with suboptimal response or treatment failure on imatinib 400 mg once daily were permitted to dose escalate to imatinib 400 mg twice daily ^{a,1}



Over half of these patients did not achieve improved responses on high-dose imatinib ^{b,2}

^a The median time on imatinib 400 mg prior to dose escalation to 800 mg was 17 months (range 3-42 months).² Dose escalation was permitted on the imatinib arm only for patients with SoR or TF. SoR is no longer defined in the ELN recommendations.^{3,4} See study design for definitions of SoR and TF in this study.

^b The median time on imatinib 800 mg was 12 months (range < 1-39 months).²

Can Tasigna Be Co-administered With Some Medications?

For many patients Ph+ CML-CP has become a chronic disease requiring continuous management and TKIs are often prescribed in patients with comorbidities¹

Coadministration is not advised in the following situations:

- Strong CYP3A4 inhibitors can increase Tasigna concentration. They should be avoided because this can lead to QT prolongation and potentially to sudden death²
- Strong CYP3A4 inducers can decrease Tasigna concentration. They should be avoided because this can lead to loss of response²
- Tasigna, by inhibiting CYP3A4 itself, can increase concentration and toxicities of other drugs, including certain statins. Doses of these substrates may need to be lowered²
- Concomitant use of anti-arrhythmic medicines and other drugs that may prolong the QT interval should be avoided²
- Taking Tasigna with food results in higher serum concentration. Grapefruit juice and other foods that are known to inhibit CYP3A4 should be avoided at any time²

Antacids/H2blockers/PPIs

	Concurrent use with Glivec ³	Concurrent use with Tasigna ⁴	Comment
Antacids	√	√	If necessary, an antacid may be administered approximately 2 hours before or approximately 2 hours after the dose of Tasigna
H2 Blockers	√	√ ⁶	When the concurrent use of an H2 blocker is necessary, it may be administered approximately 10 hours before and approximately 2 hours after the dose of Tasigna

^a Should receive heparin instead of coumadin derivatives.

^b Clinically meaningful drug-drug interaction between Tasigna and warfarin is less likely up to a dose of 25 mg of warfarin.

Patients who take Tasigna concomitantly with certain medications or who have certain comorbidities may require more frequent

DRUG-DRUG INTERACTIONS

Can Tasigna Be Co-administered With Some Medications?

Antacids/H2blockers/PPIs

	Concurrent use with Glivec ³	Concurrent use with Tasigna ⁴	Comment
Antacids	√	√	If necessary, an antacid may be administered approximately 2 hours before or approximately 2 hours after the dose of Tasigna
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PPIs	√ ⁵	√ ⁶	Tasigna may be used concurrently with esomeprazole or other proton pump inhibitors as needed

Warfarin

Warfarin	X ^a	√ ^b	Control of warfarin pharmacodynamic markers (INR or PT) following initiation of Tasigna therapy is recommended at least in the first two weeks
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^a Should receive heparin instead of coumadin derivatives.

^b Clinically meaningful drug-drug interaction between Tasigna and warfarin is less likely up to a dose of 25 mg of warfarin.

Patients who take Tasigna concomitantly with certain medications or who have certain comorbidities may require more frequent monitoring. This list is not exhaustive, please refer to the currently approved prescribing information that is applicable for your country.

Tasigna Has a Manageable, Favorable Tolerability Profile¹

In ENESTnd, 12.1% of patients taking Tasigna discontinued therapy by 5 years due to adverse events vs **13.4% of those taking imatinib.**² The median time on treatment was 60.5 months (range 0.1 - 70.8 months).¹

Fluid retention

Gastrointestinal

Skin and subcutaneous tissue

Musculoskeletal

General disorders

Hematologic parameters

Biochemical parameters

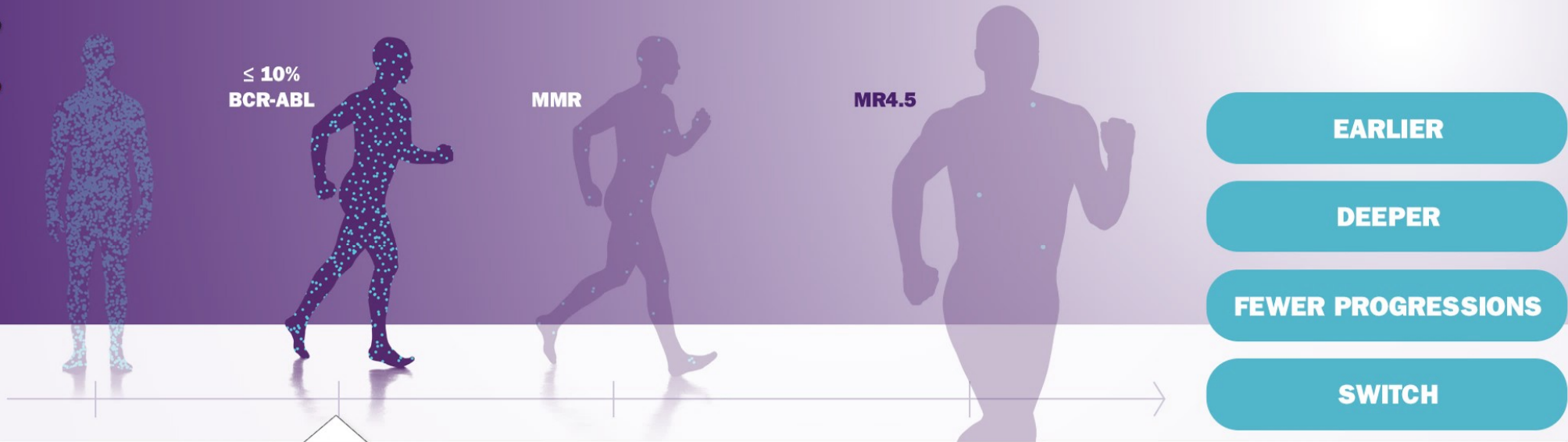


The Tasigna 400 mg BID ENESTnd study arm is not reported here and this dose is not indicated for newly diagnosed patients. For further information on safety, including the serious risks associated with Tasigna, please see the safety information and full prescribing information.

1. Habucky K, Megyeri A. Tasigna (nilotinib) 150 mg and 200 mg hard capsules core data sheet version 1.3. West Sussex, United Kingdom: Novartis Europharm Limited; 2014:1-61. Table 7-1: Most Frequently Reported Non-hematologic. Adverse Drug Reactions ($\geq 5\%$ in any TASIGNA Group)

2. Larson RA, Kim D-W, Jootar S, et al. ENESTnd 5-year update: long-term outcomes of patients with chronic myeloid leukemia in chronic phase treated with frontline nilotinib vs imatinib. *J Clin Oncol.* 2014;32(5s): abstract 7073.

Missing Milestones Has Consequences

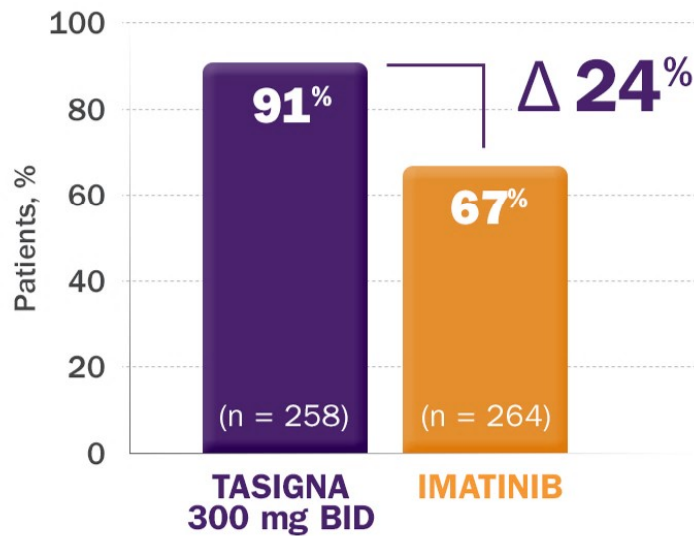


ENESTnd Landmark Analysis

Percent of Patients Who Achieved EMR at 3 Months in ENESTnd¹

Earlier response matters: More patients achieved EMR with Tasigna vs imatinib¹

Patients who achieved EMR showed greater OS¹



1. Habucky K, Megyeri A. Tasigna (nilotinib) 150 mg and 200 mg hard capsules core data sheet version 1.3. West Sussex, United Kingdom: Novartis Europharm Limited; 2014:1-61.