



# When choosing a treatment for adult patients with Ph+ CML<sup>1</sup> **EXPAND** YOUR EXPECTATIONS of long-term BOSULIF treatment

BOSULIF<sup>®</sup> (bosutinib) for patients with Ph+ CML resistant or intolerant to prior TKIs: results of the Phase 4 BYOND study

#### INDICATIONS

BOSULIF is indicated for the treatment of adult patients with:

- Newly diagnosed chronic phase (CP) Philadelphia chromosome-positive chronic myelogenous leukaemia (Ph+ CML)
- CP, accelerated phase (AP), and blast phase (BP) Ph+ CML previously treated with one or more tyrosine kinase inhibitor(s) and for whom imatinib, nilotinib and dasatinib are not considered appropriate treatment options

### Click here for the **BOSULIF SmPC**

#### Austrian SmPC is available at the booth

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# **BYOND: A Phase 4 study of BOSULIF®** (bosutinib) in patients with CML resistant or intolerant to prior TKIs<sup>1,2</sup>

#### N=163 patients

500 mg daily dose of BOSULIF

Treatment: Patients receive up to 4 years of BOSULIF treatment, except in cases of disease progression or unacceptable toxicity

Follow-up: Any patients discontinuing treatment prior to 4 years on BOSULIF will be followed for survival for up to

4 years from the time of their first dose

Second- or third-line CP Ph+ CML: (n=107) Fourth-line CP Ph+ CML: (n=49) AP Ph+ CML (n=4); CP Ph-/BCR-ABL+ CML (n=3)

#### Follow-up for each patient: 4 years

- The primary endpoints were cumulative confirmed MCyR\* by 1 year in patients with CP Ph+ CML treated with 1 or 2 prior TKIs and 3 prior TKIs, and **cumulative confirmed OHR** by 1 year in patients with AP/BP Ph+ CML with any prior TKI therapy<sup>1</sup>
- 53.2% of the patients with CP Ph+ CML were resistant to ≥1 prior TKI and 46.8% were intolerant to all prior TKIs<sup>2</sup>

### **BOSULIF** demonstrated a high rate of cytogenetic and molecular responses<sup>+</sup> in 2L+

#### **Primary endpoints**<sup>1</sup>

- Over 75% of patients treated with BOSULIF in second or third line achieved the primary endpoint of cumulative confirmed MCyR by 1 year
- Over 62% of patients in the fourth line achieved the primary endpoint of cumulative confirmed MCyR by 1 year
- 75% of patients with AP CML achieved the primary endpoint of cumulative confirmed OHR by 1 year

#### BYOND final analysis: cytogenetic and molecular response rates achieved or maintained by 4 years<sup>1,2,a</sup>

 Overall, BOSULIF demonstrated high rates of achieved or maintained cytogenetic and molecular responses across all lines of therapy, with the greatest benefit seen in second line<sup>1</sup>





°3 years' minimum follow-up

• In the primary analysis, 65% of patients achieved a deeper response relative to baseline in the overall CP Ph+ cohort<sup>2</sup>

# Primary analysis: the majority of both TKI-resistant and -intolerant patients benefited from BOSULIF<sup>2</sup>

#### **TKI-resistant patients**

 In TKI-resistant patients who did not achieve MMR from prior therapy, 45.8% were able to do so with BOSULIF

**MR rates for TKI-resistant** patients any time on treatment § <sup>100</sup> MMR MR<sup>4</sup> 80 ΣR MR<sup>4.5</sup> with 60 61.8 40 45.8 Patients 35.0 20 36.8 33.3 0 TKI-resistant TKI-resistant (achieved or (achieved)° maintained)<sup>b</sup>

<sup>b</sup>The evaluable population consisted of 76 patients with a valid baseline efficacy assessment for MR.

<sup>c</sup>The evaluable population consisted of 48 patients without MMR at baseline, 60 patients without MR<sup>4</sup> at baseline, and 72 patients without MR<sup>4.5</sup> at baseline.

# Duration of therapy in the primary analysis<sup>2</sup>

- In the overall population, the median treatment duration with BOSULIF was 23.7 months, despite a high number of patients having previously failed several lines of therapies
- Median treatment duration was 23.4 months and 25.3 months for TKI-resistant and TKI-intolerant patients, respectively

# Primary analysis: BOSULIF was well tolerated with a well-defined safety profile<sup>2</sup>

- The rate of treatment discontinuation due to AEs was consistent with previous studies, despite approximately half of patients being intolerant to all prior TKI therapies
- Overall, AEs were manageable with dose reductions and temporary discontinuations

Total (N = 163) All Grades		
Any TEAE, %	99.4	
Most common TEAEs (>30%), %		
Diarrhea	87.7	
Nausea	39.9	
Vomiting	32.5	
<b>TEAEs of special interest</b> , %		
Gastrointestinal	91.4	
Effusion	18.4	
Cardiac	14.7	
Vascular	11.7	
Metabolic	8.0	
Treatment-emergent SAEs, %	35.6	

Classification of AEs is based on the Medical Dictionary for Regulatory Activities (v21.1).



Total (N = 163) Grade 3/4		
Any TEAE, %	73.6	
Most common TEAEs (>5%), %		
Diarrhea	16.0	
Increased ALT	14.1	
Thrombocytopenia	8.0	
Increased lipase	6.7	
Pleural effusion	6.1	



# HRQoL was maintained for a year following treatment with BOSULIF<sup>®</sup> (bosutinib)<sup>2</sup>

- Patient-reported outcome results from BYOND suggest BOSULIF is a treatment option with manageable AEs, providing further support for its use in patients with CP Ph+ CML resistant or intolerant to prior TKIs
  - After 1 year of BOSULIF treatment, total Functional Assessment of Cancer Therapy-Leukemia (FACT-Leu) scores were maintained from baseline in all cohorts<sup>‡</sup>
  - No mean change in any individual FACT-Leu domain score from baseline met the MID, demonstrating that health-related quality of life was maintained<sup>§</sup>

## Conclusions

- High rates of cytogenetic and molecular responses, including a large proportion of patients who achieved MR<sup>4</sup> and MR<sup>4.5</sup>, were observed with BOSULIF treatment<sup>1</sup>
- AEs that occurred with BOSULIF were manageable, further evidenced by maintenance of HRQoL, and the reported AEs were consistent with the known safety profile of BOSULIF<sup>2</sup>
- The results from this Phase 4 study further confirm the use of BOSULIF for patients with CML resistant or intolerant to prior TKIs across all treatment lines<sup>1,2</sup>

The Phase 4 study was designed to fulfill the post-authorization commitment to the EMA to provide additional safety and efficacy data for BOSULIF in patients with CML after failure of prior TKI treatment, including imatinib and/or dasatinib and/or nilotinib, or in those who are otherwise ineligible for treatment with other TKIs.

- \*Cumulative confirmed MCyR was defined as CCyR (0% Ph+ from  $\geq$ 20 metaphases or <1% fluorescent in situ hybridization positive cells from  $\geq$ 200 interphase nuclei) or partial cytogenetic response (>0%,  $\leq$ 35% Ph+). To be considered a responder, the patient must have had maintenance of baseline response for  $\geq$ 52 weeks for cytogenetic response or an improvement from baseline.<sup>1,2</sup>
- <sup>+</sup>MMR, MR<sup>4</sup>, and MR<sup>4.5</sup> were defined as  $\leq$ 0.1%,  $\leq$ 0.01%, and  $\leq$ 0.0032% BCR-ABL/ABL ratio on international scale, respectively.
- <sup>1</sup>Cohorts included patients with CP Ph+ CML who had received 1, 2, or 3 prior TKIs as well as the total CP Ph+ CML cohort.<sup>2</sup>
- <sup>§</sup>MID=minimum important difference, defined as the change identified as clinically meaningful to the patient.<sup>4</sup>

2L=second-line; 3L=third-line; 4L=fourth-line; AE=adverse event; ALT=alanine aminotransferase; AP=accelerated phase; BP=blast phase; CCyR=complete cytogenetic response; CML=chronic myelogenous leukemia; CP=chronic phase; CyR=cytogenetic response; EMA=European Medicines Agency; HRQoL=health-related quality of life; MCyR=major cytogenetic response; MMR=major molecular response; MR=molecular response; OHR=overall hematologic response; Ph==Philadelphia chromosome-negative; Ph+=Philadelphia chromosome-positive; SAE=serious adverse event; TEAE=treatment-emergent adverse event; TKI=tyrosine kinase inhibitor.

#### References

 BOSULIF<sup>®</sup> Summary of Product Characteristics. https://www.ema.europa.eu/en/documents/product-information/ bosulif-epar-productinformation\_en.pdf. Updated May 3, 2022. Accessed May 6, 2022. 2. Hochhaus A, Gambacorti-Passerini C, Abboud C, et al. Bosutinib for pretreated patients with chronic phase chronic myeloid leukemia: primary results of the phase 4 BYOND study. *Leukemia*. 2020;34:2125-2137. 3. Gambacorti-Passerini C. Efficacy and safety of bosutinib in previously treated patients with chronic myeloid leukemia: final results from the BYOND trial. Presented at: 63rd Annual Meeting of the American Society of Hematology (ASH); December 11-14, 2021; Atlanta, GA, USA.
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