

ASH 2020



CML ADVOCATES NETWORK CONFERENCE REPORT

A promotional poster for the 62nd ASH Annual Meeting and Exposition. The background is red with a pattern of white and red blood cells. On the left, the American Society of Hematology logo is visible. The main text reads "62nd ASH® Annual Meeting and Exposition" in white, with "DECEMBER 5-8, 2020" in yellow below it. At the bottom left, it says "#ASH20 will be Virtual". On the right side, there is a grid of 15 small video call windows showing various participants.

AMERICAN SOCIETY OF HEMATOLOGY

62nd ASH®
Annual Meeting
and Exposition

DECEMBER 5-8, 2020

#ASH20 will be Virtual

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62nd American Society of Hematology Congress



#ASH20

INTRODUCTION

Originally to be held in San Diego, California, the 62nd ASH Annual Meeting and Exposition organised by the American Society of Hematology was presented as an all-virtual event on **December 5-8, 2020**, given the continuing threat of the COVID-19 pandemic.

This report summarizes the Chronic Myeloid Leukemia highlights presented in this key meeting for our community:

- ✱632 Chronic Myeloid Leukemia: Therapy– Building The Future CML.
- ✱Education Program. Handling Challenging Questions in the Management of CML.
- ✱632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond.
- ✱Special Interest Session: The 2020 Pandemic: Latest Insights on COVID-19.
- ✱Education Program: Improving Symptom Control for Children with Hematological Malignancies.

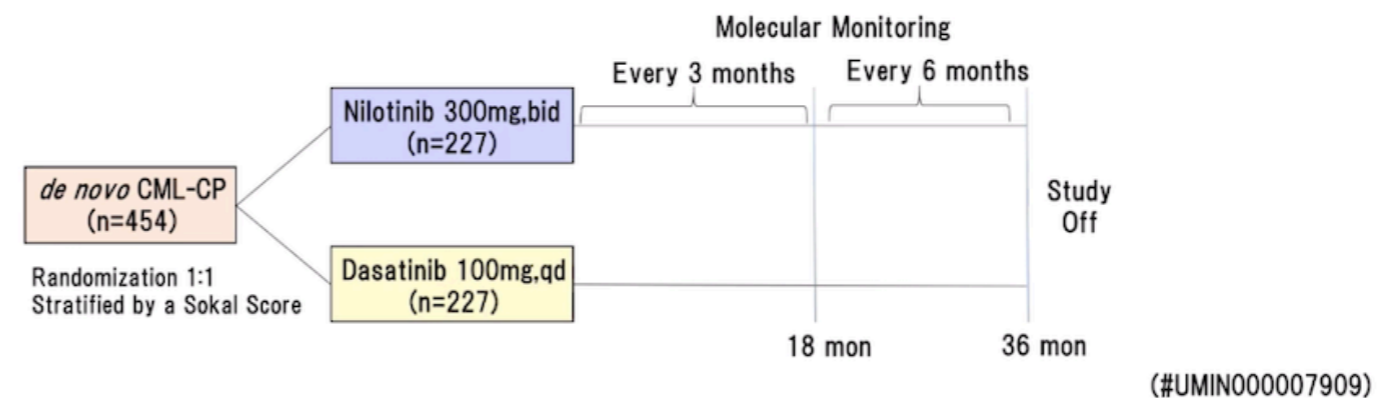
632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

45 Nilotinib Vs. Dasatinib in Achieving MR4.5 for Newly Diagnosed Chronic Myeloid Leukemia: Results of the Prospective Randomized Phase 3 Study, JALSG CML212. Itaru Matsumura, MD, Ph.D.

Open-labelled multicentral prospective phase 3 randomised controlled study to compare the cumulative achievement of MR 4.5 by 18 months between nilotinib and dasatinib in *de novo* CML-CP patients.

CML212: Study Design

An open-labelled multicentral prospective phase 3 randomized controlled study to compare the cumulative achievement of MR^{4.5} by 18 months between nilotinib and dasatinib in *de novo* CML-CP patients



Sample Size:

From the results of ENESTnd, DASISION, and two phase 2 studies conducted at MD Anderson Cancer Center, we assumed cumulative rates of MR^{4.5} by 18 months were 21% in patients treated with nilotinib 300 mg, bid and 9.5% in those with dasatinib 100 mg, qd. A total sample size of 450 will verify a hypothesis that "nilotinib is superior to dasatinib in the cumulative rates of MR^{4.5} by 18 months" with the described effect size by 1:1 randomization with a statistical power of 90% and at a 0.05 two-sided significance level with stratified CMH (Cochran-Mantel-Haenszel) test allowing 10% loss to follow-up.

Conclusions:

- Nilotinib and dasatinib were equally effective for *de novo* CML-CP patients in achieving MR 4.5 by 18 months (33% vs. 30,8% $p=0,67$) as well as achieving CCyR, MMR and MR 4.0 in terms of both frequencies and times to achievement.

- The continuity of nilotinib and that of dasatinib were almost the same at 36 months.
- No unknown serious adverse event was observed during the study.

632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

46 Bosutinib (BOS) Versus Imatinib for Newly Diagnosed Chronic Phase (CP) Chronic Myeloid Leukemia (CML): Final 5-Year Results from the Before Trial. Tim H Brümmendorf, MD.

Open-label, randomized, multicenter, phase 3 trial to evaluate the efficacy in the ITT population with the exception of cytogenetic endpoints which were evaluated in the modified ITT population .

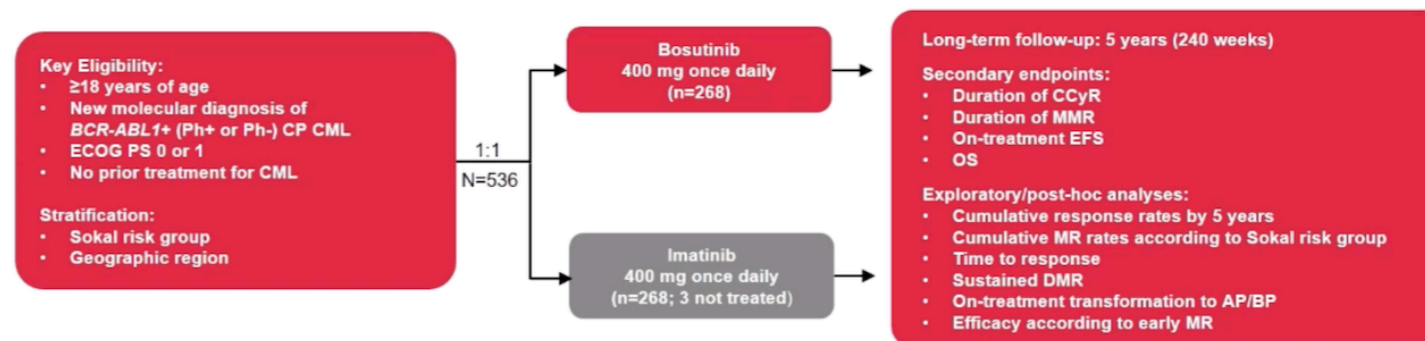
Conclusions:

- After 5 years of follow-up, bosutinib continued to

BFORE Study Design



- BFORE (NCT02130557) was an open-label, randomized, multicenter, phase 3 trial



- This analysis evaluated efficacy in the ITT population (all randomized patients), with the exception of cytogenetic endpoints which were evaluated in the modified ITT population (Ph+ patients with e13a2/e14a2 transcripts)

This final analysis was based on a last patient last visit of April 17, 2020 (June 12, 2020 database lock), 5 years after the last enrolled patient. AP=accelerated phase; BP=blast phase; CCyR=complete cytogenetic response; DMR=deep molecular response; ECOG PS=Eastern Cooperative Oncology Group performance status; EFS=event free survival; MMR=major molecular response; MR=molecular response; OS=overall survival

demonstrate superior efficacy compared with imatinib.

- The greatest improvement in MR with bosutinib was observed in Sokal high-risk patients.
- A higher percentage of patients achieved BCR-ABL1 transcripts ≤10% at 3 months in the bosutinib vs the imatinib arm.

- A substantial proportion of patients receiving bosutinib or imatinib achieved a 2-year sustained MR4.
- Long-term AEs were generally manageable.
- These results confirm the use of bosutinib as a standard of care in patients with newly diagnosed CP CML.


632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

47 Do Not Miss Karyotyping at Chronic Myeloid Leukemia Diagnosis: An Italian Campus CML Study on the Role of Complex Variant Translocations. Massimiliano Bonifacio, MD.

Study to describe the characteristics of patients with CVT in a large cohort of CML patients in 19 Italian Centers and to explore the impact of the different partner chromosomes on outcome.

Conclusions:

- CML patients with complex variant translocations treated with 2G-TKI




Differences according to the partner chromosome

Partner chromosome	1	2	3	4	5	6	7	8	10	11	12	13	14	15	16	17	18	19	20	21	X
N. of patients	9	4	4	6	3	9	2	4	6	8	9	2	9	6	1	7	2	2	1	1	2
MMR at 12 months (%)	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
Stable DMR (%)	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
5-year FFS (%)	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6	75.6

- MMR at 12 months: 74.3%
- Stable DMR: 54.2%
- 5-year FFS: 75.6%

- MMR at 12 months: 30.4%
- Stable DMR: 26.1%
- 5-year FFS: 67.8%

• ELTS risk and type of front line TKI were comparable in these two groups.


American Society of Hematology #47
Do Not Miss Karyotyping at Chronic Myeloid Leukemia Diagnosis: An Italian Campus CML Study on the Role of Complex Variant Translocations

- front line had higher rates of optimal responses at 3 and 6 months as compared to patients treated with imatinib.
- However, molecular responses at 12 months and beyond did not differ according to front line TKI.

- Differences in response and long-term outcome depending on partner chromosome were observed, regardless of risk and front line TKI.
- Data reinforce the usefulness of bone marrow karyotyping in CML.

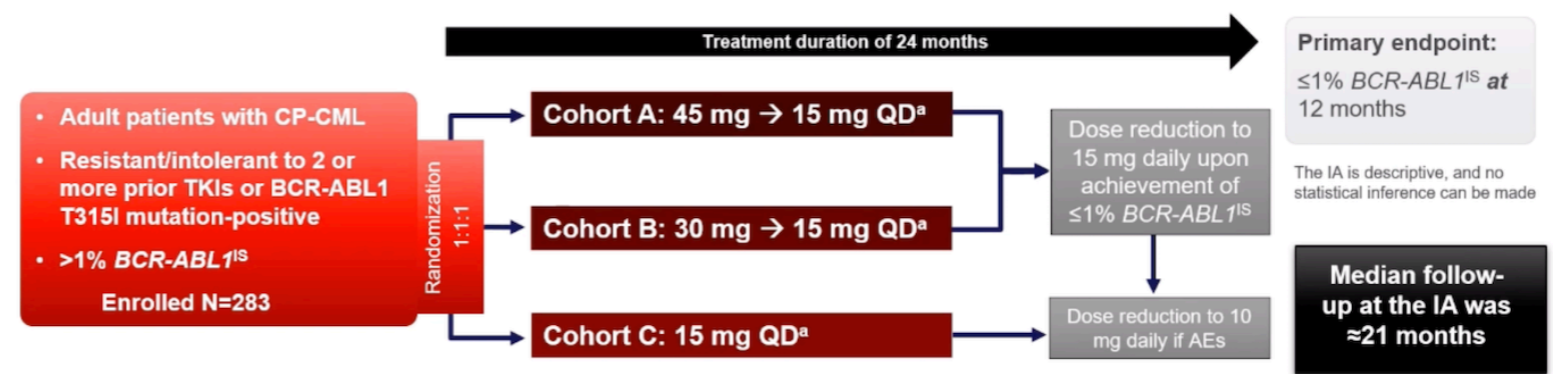


632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

48 Outcome By Mutation Status and Line of Treatment in Optic, a Dose-Ranging Study of 3 Starting Doses of Ponatinib in Patients with CP-CML. Jorge E. Cortes, MD.

Phase 2 OPTIC Trial (NCT02467270) Subset Analyses

- Outcomes were analyzed by baseline mutation status (none, any, T315I, and mutation other than T315I) and number of prior TKIs (≤ 2 or ≥ 3) in the ITT population
 - Mutation status was determined by a central lab
- TEAEs, serious TEAEs, and AOE by adjudication were summarized by number of prior TKIs (≤ 2 or ≥ 3)



^a Dose reductions due to AEs were permitted → 15 mg. Cohort A is referred to as 45 mg → 15 mg and Cohort B as 30 mg → 15 mg because the study design has a dose reduction to 15 mg upon achievement of $\leq 1\%$ BCR-ABL1^{IS}. There also were patients in Cohorts A and B who dose-reduced to different dose levels (30, 15, and 10 mg) due to safety
 IA, interim analysis; ITT, intent to treat; QD, daily; TEAE, treatment-emergent adverse event

Conclusions:

- OPTIC IA shows the benefit of ponatinib in all 3 dosing regimens in a largely resistant population where the majority of patients (>60%) failed to achieve a response greater than CHR on immediate prior therapy
- In resistant patients with or without mutations, the rate of $\leq 1\%$ BCR-ABL1 by 12 months was highest in Cohort A (45mg starting dose) with the most notable differences seen in patients with T315I mutation.
- Use of ponatinib in earlier lines of therapy provides an optimal benefit:risk profile with a potential trend toward better outcomes for patients previously treated with \leq TKIs.

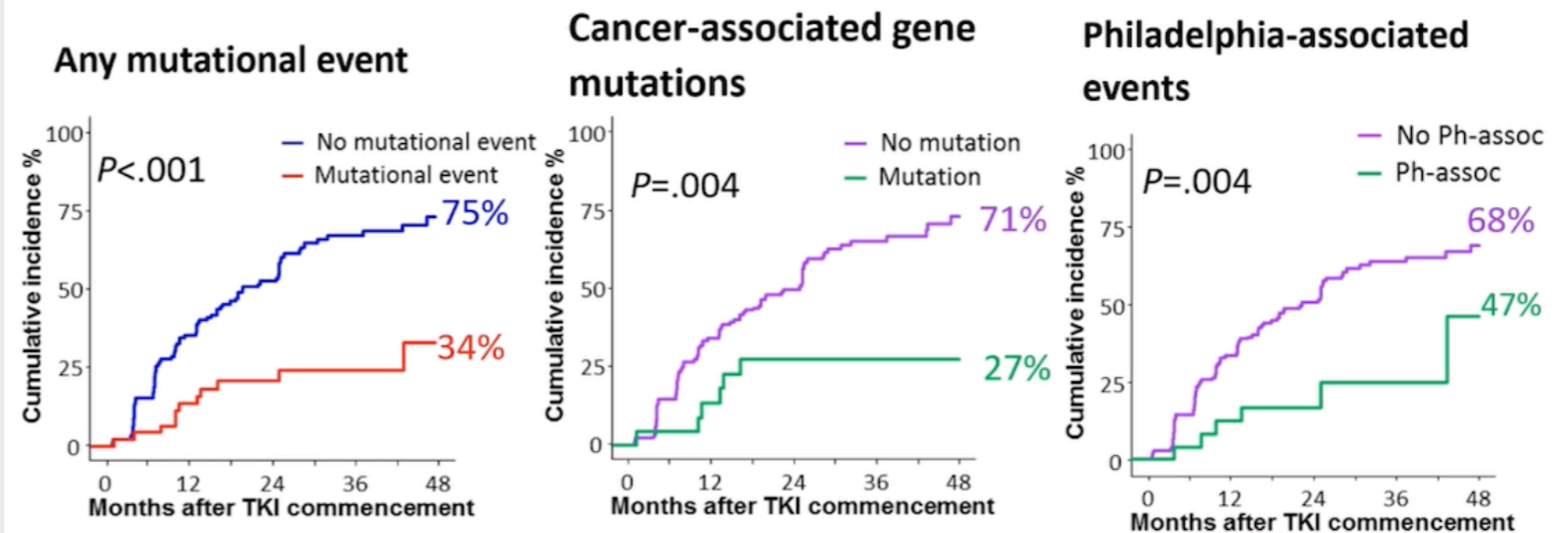
632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

49 Mutated Cancer-Related Genes Detected at Diagnosis of CML and a Novel Class of Variant Associated with the Philadelphia Translocation Are Both Independent Predictors of Inferior Outcomes. Naranie Shanmuganathan, FRACP, FRCPA, MBBS.

Conclusions:

- 28% of patients will have a mutational event:
 - 16% cancer related gene mutation
 - 16% Ph-associated events.

MR4 achievement



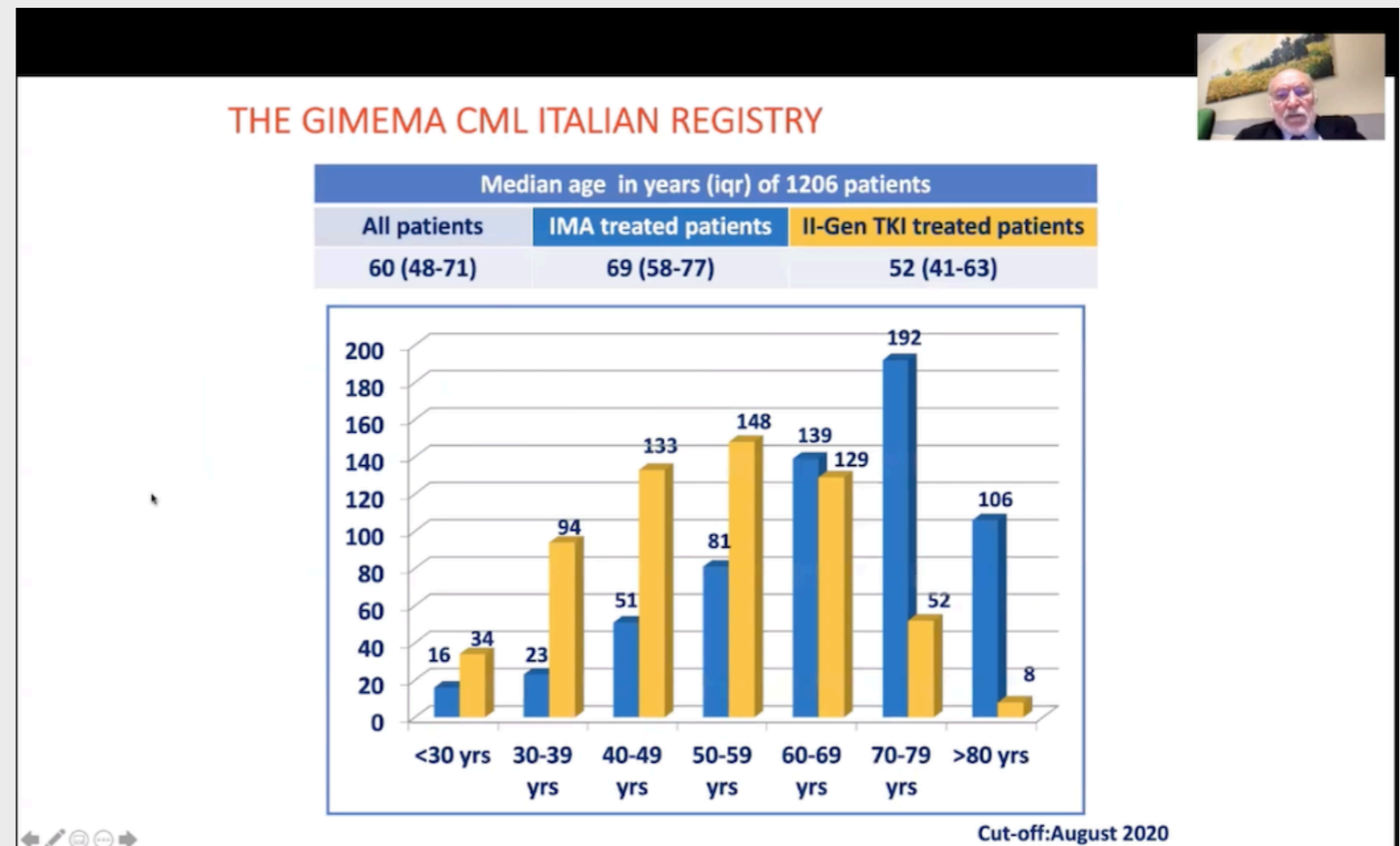
- Cancer associated gene mutations and Ph-associated events are predictive for progression to accelerated and blast crisis, but also kinase domain mutation development in addition to inferior molecular responses.
- Ph-associated events are specifically associated with inferior EMR achievement and slower BCR-ABL1 decline.

632 Chronic Myeloid Leukemia: Therapy– Building The Future CML. Oral Abstracts

50 Predictive Factors for Overall Survival in Chronic Myeloid Leukemia Patients: An Analysis By the Gimema Cml Italian Study. Patrizia Pregno.

Conclusions:

- Results show a different clinical behaviour among Italian physicians who prevalently prescribed IMA to older patients with comorbidities as compared to 2gen TKIs, more frequently used in younger and healthier patients.
- Percentage of CML related deaths decreases with age and in presence of comorbidity.



- A comparison between treatments in the whole cohort suggests a better OS for 2gen TKI vs IMA. However, in patients without comorbidity any difference in OS is confirmed.
- Prognostic baseline features associated to OS were age, comorbidity and the ELTS score, that shows a much stronger prediction on OS in patients without comorbidities.



Education Program. Handling Challenging Questions

First Generation vs. Second Generation TKI - Which is Best At Diagnosis of Chronic Phase CML? Vivian G. Oehler, MD.

This first session of the education program was focused on: identifying disease-specific risk factors at chronic phase diagnosis that influence first-line tyrosine kinase inhibitor selection; examine how first-line TKI selection impacts outcomes; and delineate patient comorbidities that impact first-line TKI selection.

When is it safe to stop TKIs? Delphine Rea, MD, Ph.D.

The second session run by Dr. Rea was through the knowledge on:

Factors influencing deep molecular responses achievement

The appropriate patient selection for TKI discontinuation

And finally, the safety aspects after treatment ends.

Considerations when selecting 1st line therapy

Goals:

- Life expectancy not impacted by CML: higher-risk CML
- Limit impact of TKI therapy on comorbidity outcomes
- Quality of life and minimizing adverse events
- Treatment-free remission
- Limiting costs
- Family planning

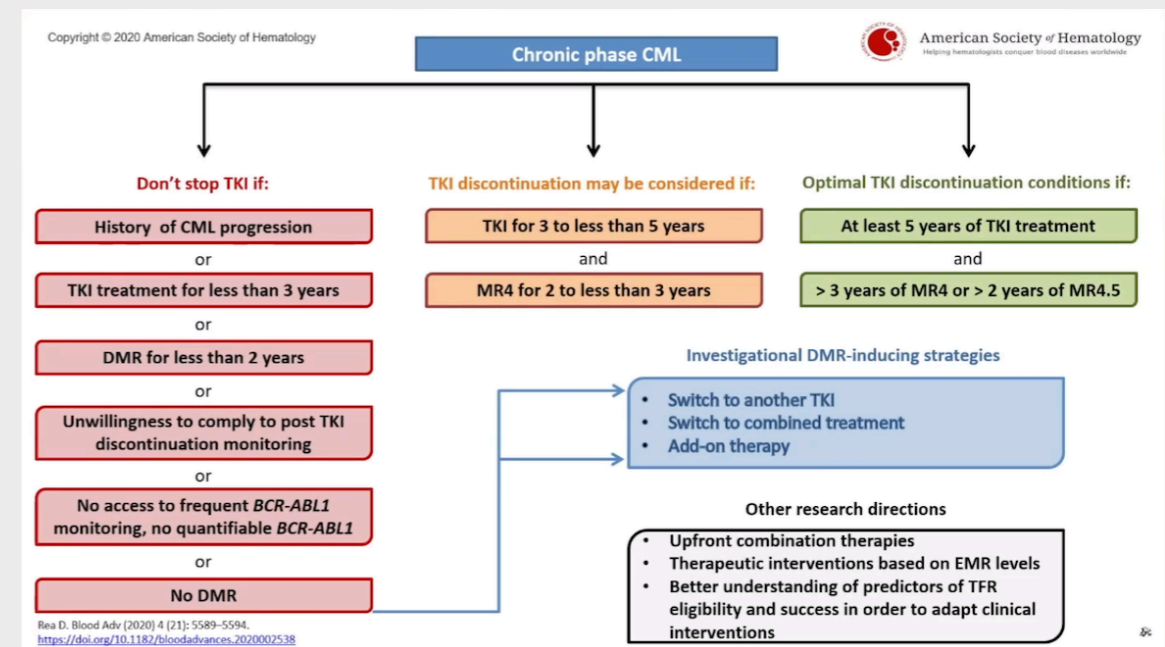
Tyrosine kinase inhibitor:

- 2nd generation TKI, imatinib
- Imatinib, 2nd generation TKI
- Imatinib, 2nd generation TKI
- 2nd generation TKI, imatinib
- Imatinib
- 2nd generation TKI, imatinib

- Imatinib is generic and has an excellent safety profile**
 - Imatinib-treated patients can achieve deep molecular responses even those with higher risk disease, is feasible
 - However, for some high-risk patients a window may be lost with less potent therapy
- Medical comorbidities may make 2nd generation TKIs used first-line more difficult**
 - Although CML-related deaths are lower on 2nd generation TKIs; overall survival is no different
 - May be due to increased treatment-related mortality on 2nd generation TKIs
- Additional biomarkers of poor response or toxicity may help identify high-risk patients, particularly those with comorbidities, who would benefit from first-line 2nd generation TKI therapy**
 - Mutational analyses, gene expression profiling, assessment of the immune microenvironment

Oral Abstract 649. Rea D et al. COVID-19 in Patients (pts) with Chronic Myeloid Leukemia (CML): Results from the International CML Foundation (ICMLF) CML and COVID-19 (CANDID) Study

Kok CH et al. Blood Adv (2019) 3 (10): 1610–1621. Oehler VG et al. Bioinformatics. 2012;28(6):823-830. Brück O et al. Leukemia. 2018 Jul;32(7):1643-1656 Radich JP et al. Blood (2019) 134 (Supplement_1): 665.



Education Program. Handling Challenging Questions

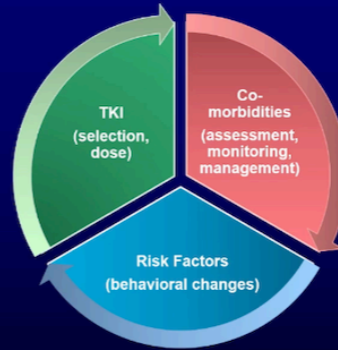

How to manage CML patients with comorbidities?

Jorge E. Cortes, MD.

The last session of the education program with Dr. Cortés as speaker gave us key advises on managing CML patients with comorbidities as the following:

- Assess risk factors
- Eliminate/manage behavioural risk factors (smoking, diet, exercise)
- Aggressively follow and manage co-morbidities (DM, hypertension, cholesterol, weight)
- When possible, use drugs with lower risk for patients at higher risk
- Dose adjustments as needed
- Monitor ankle-brachial index, statins?
- Involve specialists early and balance risk:benefit

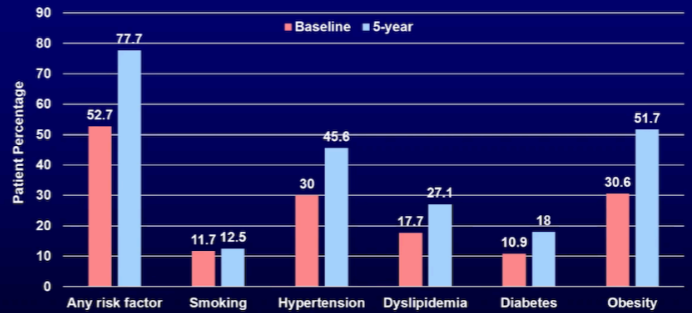
Managing CML Patients With Co-morbidities

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Prevalence of CVD Risk-Factors Among CML Patients at Baseline and 5-Year Follow-up

• Chart review of 1639 patients treated by community-based US oncologists 2005-2014



Risk Factor	Baseline (%)	5-year (%)
Any risk factor	52.7	77.7
Smoking	11.7	12.5
Hypertension	30	45.6
Dyslipidemia	17.7	27.1
Diabetes	10.9	18
Obesity	30.6	51.7

Coutinho et al. CLML 2017; 17: 676-83

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632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond, Oral Abstracts.

647 Efficacy and Safety of Ponatinib (PON) in Patients with Chronic-Phase Chronic Myeloid Leukemia (CP-CML) Who Failed One or More Second-Generation (2G) Tyrosine Kinase Inhibitors (TKIs): Analyses Based on PACE and Optic. Hagop M. Kantarjian, MD.

Conclusions:

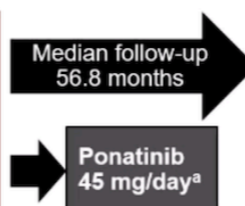
- In this analysis, ponatinib shows high response rates and robust survival outcomes in patients who have failed prior 2G TKI.

PACE and OPTIC Trials

PACE

- PACE (NCT01207440): a Phase 2, single-arm study, of ponatinib in patients with refractory CML or Ph+ ALL
- Subset analysis of the CP-CML cohort (n=270)

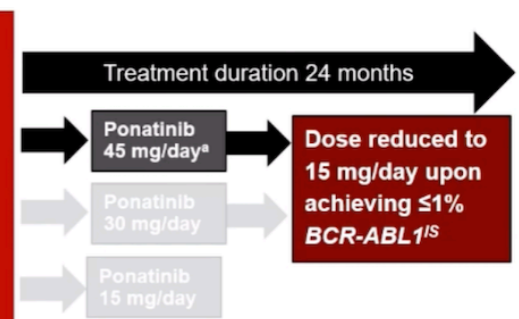
- Adults with CML or Ph+ ALL
- Resistant/intolerant to 2 or more prior TKIs or *BCR-ABL1* T315I+
- >1% *BCR-ABL1*^{IS}
- Enrolled N=254



OPTIC

- OPTIC (NCT02467270): a multicenter, randomized Phase 2 trial characterizing the safety and efficacy of ponatinib
- Subset analysis of the 45-mg starting dose (45 mg → 15 mg) cohort (n=93)

- Adults with CP-CML
- Resistant/intolerant to 2 or more prior TKIs or *BCR-ABL1* T315I+
- Enrolled N=283



Total 350 CP-CML patients who had ≥1 prior 2G TKIs (PACE, n=257 and OPTIC, n=93) received ponatinib.

^a Dose reductions for adverse events were permitted in PACE (to 15 mg) and OPTIC (to 10-15 mg)
 ALL, acute lymphoblastic leukemia; Ph+, Philadelphia chromosome-positive
 1. Cortes JE, et al. Presentation at 2020 ASCO Annual Meeting. 2. Cortes JE, et al. *Blood*. 2018;132:393-404.

- Compared with PACE, the overall incidences of AOE and serious TEAEs as well as exposure-adjusted AOE during the first 2 years were lower in OPTIC.
- Ponatinib demonstrated a favorable benefit:risk profile among all TKIs for resistant

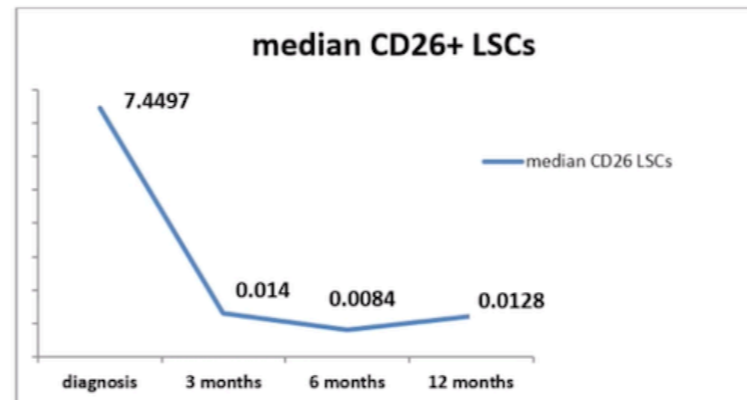
CP-CML patients who have failed prior 2G TKI(s) regardless of mutation status.

632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond, Oral Abstracts.

648 Peripheral Blood CD26+ Leukemia Stem Cells Monitoring in Chronic Myeloid Leukemia Patients from Diagnosis to Response to TKIs: Interim Results of a Multicenter Prospective Study (PROSPECTIVE FLOWERS). Monica Bocchia.

Conclusions:

- They confirmed no correlation between the absolute number of persisting CD26+ LSCs and BCR-ABL copies.



Circulating CD26+ LSCs decrease rapidly after 3 months of TKI treatment, afterward fluctuating at very low level in the great majority of patients

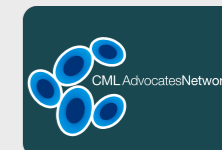


	CD26 LSCs at diagnosis median values	CD26 LSCs at +3 months median values	CD26 LSCs at +6 months median values	CD26 LSCs at +12 months median values
IMATINIB	4.5818 (0.1452-487)	0.01175 (0-6.4901)	0.009 (0-0.142)	0.0114 (0-0.1017)
NILOTINIB	12.4801 (0.0126-3643)	0.01655 (0-1.787)	0.0059 (0-0.132)	0.0107 (0-0.1824)
DASATINIB	17.3378 (0,2993-365)	0.0089 (0-0.2164)	0.0052 (0-1.1889)	0.009 (0-0.0765)

No substantial differences between TKIs

- However, patients with failure or suboptimal response leading to a switch of TKI showed the highest amount of circulating CD26+LSCs at diagnosis.
- They found a potential correlation between younger age and higher number of circulating CD26+LSCs

at diagnosis that needs further elucidation.



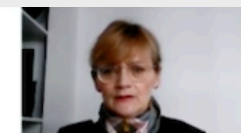
632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond, Oral Abstracts.

649 COVID-19 in Patients (pts) with Chronic Myeloid Leukemia (CML): Results from the International CML Foundation (iCMLf) CML and COVID-19 (CANDID) Study. Delphine Rea, MD, PhD.

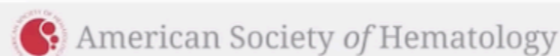
Conclusions:

- SARS CoV-2 infection may be asymptomatic in CML patients.
- Symptomatic COVID-19 in CML is mild to moderate in the majority (~80%) of patients.
- Half of CML patients with severe/critical COVID-19 died.

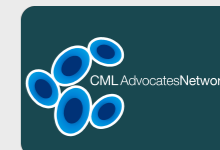
Patient characteristics



Characteristics (n=201)	Results n, (%)
Male sex	122 (60.7%)
Median age	53 years (range 18-89)
Median duration of CML (range)	70 months (0-336)* *10 newly diagnosed CML pts
CML treatment at the time of COVID-19	
- Hydroxyurea	2 (1%) ** 14 pts in TKI-free remission
- IFN	1 (0.5%) 8 pts newly diagnosed
- TKI	162 (81.5%) 5 pts with safety issues
- None**	34 (17%) 2 TFR post allo SCT
TKI type among TKI-treated pts (n=162)	
Imatinib	91 (56.2%) 3 other causes
2 nd generation TKI	64 (39.5%) (dasatinib 29 / bosutinib 11 / nilotinib 24)
Ponatinib	5 (3.1%)
Experimental TKI (HQP1351)	1 (0.6%)
Unknown	1 (0.6%)



- The main factor associated with COVID-19 severity is older age, rather than CML.
- TKI treatment and generation do not seem to be associated with COVID-19 severity or death.
- Altogether, these data suggest that CML may not represent a particular vulnerability although few exceptions may exist.



632: Chronic Myeloid Leukemia: Therapy: CML: New and Beyond, Oral Abstracts.


650 Asciminib, a First-in-Class STAMP Inhibitor, Provides Durable Molecular Response in Patients (pts) with Chronic Myeloid Leukemia (CML) Harboring the T315I Mutation: Primary Efficacy and Safety Results from a Phase 1 Trial. Jorge E. Cortes, MD.

Conclusions:

- Asciminib 200 mg BID has a favorable safety profile and meaningful clinical efficacy in patients with the T315I mutation.

Asciminib for CML With T315I

Characteristics of Ponatinib-Naive and Ponatinib-Pretreated Patients



Parameter	Ponatinib-Naive (n = 21)	Ponatinib-Pretreated (n = 31)
Time from diagnosis, median, years (range)	1.8 (0.5-13.4)	5.2 (1.5-27.9)
No. of prior TKIs, n (%)		
1	9 (42.9)	0
2	9 (42.9)	7 (22.6)
3	3 (14.2)	15 (48.4)
≥ 4	0	9 (29.0)
<i>BCR-ABL</i> 1 ^{IS} at screening, n (%)		
> 0.1% to ≤ 1%	3 (14.2)	5 (16.1)
> 1% to ≤ 10%	7 (33.3)	6 (19.4)
> 10%	11 (52.5)	17 (54.8)
Atypical/unknown transcripts	0	3 (9.7)

Oral presentation at the 2020 ASH Annual Meeting & Exposition, held virtually on 5-8 December 2020

- Nearly half of patients achieved MMR, which has been durable in most of the patients.
- The safety profile of asciminib 200 mg BID is consistent with that observed at a lower dose in patients without the T314I mutation.
- Asciminib is a promising therapeutic option for patients with CML-CP/AP with the T351I mutation, including those for whom ponatinib treatment has failed.



**632: Chronic Myeloid Leukemia:
Therapy: CML: New and Beyond,
Oral Abstracts.**

651 Novel BCR-ABL1 Tyrosine Kinase Inhibitor (TKI) HQP1351 (Olverembatinib) Is Efficacious and Well Tolerated in Patients with T315I-Mutated Chronic Myeloid Leukemia (CML): Results of Pivotal (Phase II) Trials. Qian Jiang, MD.

Conclusions:

- HQP1351 was highly efficacious and well tolerated in the TKI-resistant CML-CP and CML-AP patients with T351I mutation(s) in the pivotal Phase II studies.

652 Phase 1 Trial of Vodobatinib, a Novel Oral BCR-ABL1 Tyrosine Kinase Inhibitor (TKI): Activity in CML Chronic Phase Patients Failing TKI Therapies Including Ponatinib. Jorge E. Cortes, MD.

Conclusions:

- Efficacy was comparable in both ponatinib naïve and ponatinib treated groups with durable responses.
- Notable efficacy in ponatinib treated patients despite being more heavily pre-treated.
- Well tolerated safety profile in both treatment groups.

Special Interest Session: The 2020 Pandemic: Latest Insights on COVID-19.

Do COVID-19 Patients Face Increased Risk of Thrombosis? Saskia Middeldorp, MD, PhD.

Dr. Middeldorp explained the risk of venous thromboembolism in #COVID19 patients, making a comparison between them and other critically ill patients.

Conclusion: Patients with COVID19 coagulopathy are at a higher risk of thrombosis and death.

COVID-19 ARDS vs non-COVID-19 ARDS

- COVID19 ARDS: N=150
- Non-COVID-19 ARDS patients: N=145 (historical control group)
- Thromboembolic complications: 11.7% vs 4.8%
- OR 2.6 (95%CI 1.1-6.1)

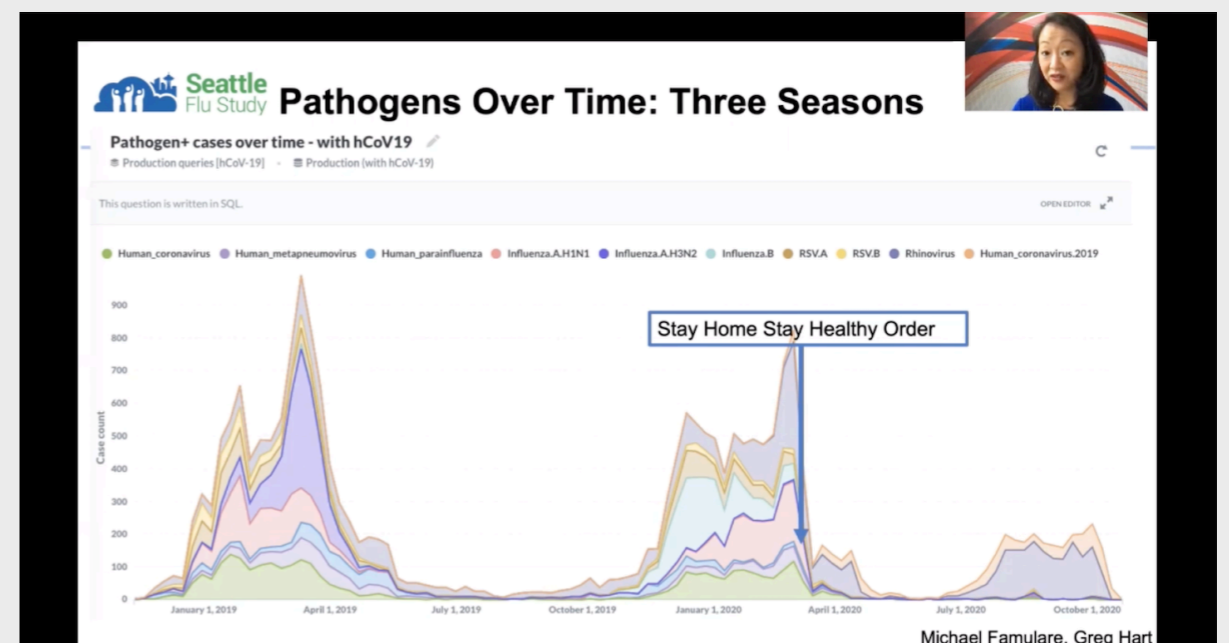
	Population after matching (n = 222)			
	Non-COVID-19-ARDS (n = 145)	COVID-19-ARDS (n = 77)	OR [95% IC]	p-value
Thrombo-embolic complications—n (%)	7 (4.8)	9 (11.7)	2.6 [1.1-6.1]	0.04
Pulmonary embolisms—n (%)	3 (2.1)	9 (11.7)	6.2 [1.6-23.4]	0.01
Deep vein thrombosis—n (%)	2 (1.4)	0 (0)	—	—
Myocardial infarction—n (%)	2 (1.4)	0 (0)	—	—
Cerebral ischemic attack—n (%)	0 (0.0)	0 (0)	—	—
Limb ischemia—n (%)	0 (0.0)	0 (0)	—	—
Mesenteric ischemia—n (%)	2 (1.4)	1 (1.3)	0.96 [0.09-9.8]	0.97
Nb of RRT filter per dialyzed patient—median, IQR	2.0 [1.0-2.5]	3.0 [2.0-6]	—	0.03
Nb of RRT filter per day of RRT—median, IQR	0.3 [0.3; 0.4]	0.7 [0.5; 1]	—	<0.001
ECMO oxygenator thrombosis—n (%)	1/7 (14.3)	0/4 (0)	—	—
Hemorrhagic complications—n (%)	2 (1.4)	0 (0)	—	—

American Society of Hematology

How Can Community-Based Surveillance Strategies for Sars-Cov-2 Inform Pandemic Planning? Helen Chu, MD, MPH.

Conclusions of this interesting session were:

- Biospecimen repositories linked with clinical data are essential for real-time identification of novel pathogens.
- Community-based studies provide an opportunity to identify pathogens early and take steps to prevent further transmission.



Education Program: Improving Symptom Control for Children with Hematological Malignancies.

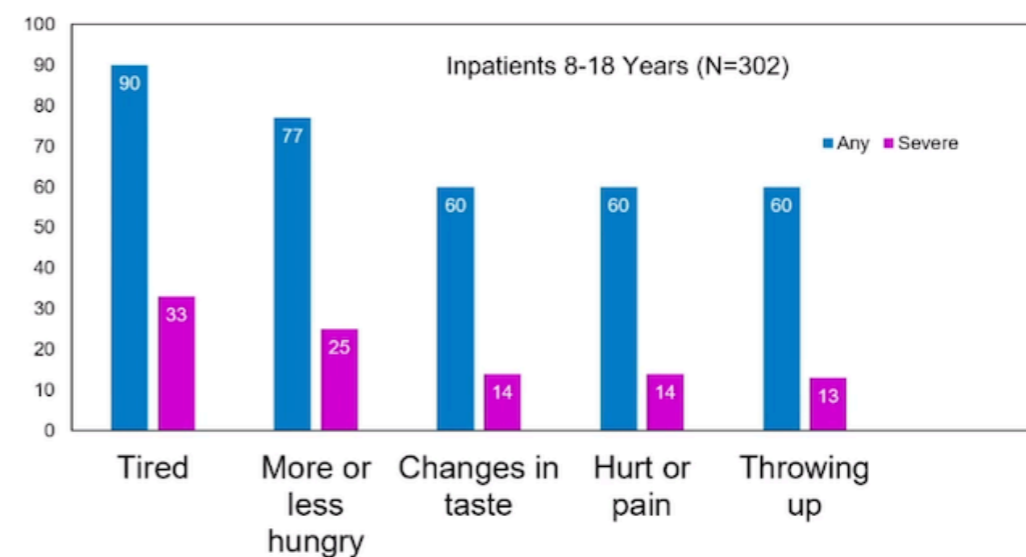
Symptom Screening in Routine Care - Time to Move Beyond Research? Lillian Sung, MD, PhD

Dr. Sung described the importance of symptom control in children with cancer, and approaches to identify symptoms amenable to clinical implementation.

Conclusions

- Symptoms prevalent and severely bothersome in pediatric cancer
- SPARK: Routine symptom screening, symptom feedback and care pathways.
- Multicenter trials to identify optimal strategies

Bothersome Symptoms Common in Pediatric Cancer Patients



spark



Johnston Cancer Medicine 2018



Education Program: Improving Symptom Control for Children with Hematological Malignancies.

Capturing Treatment Toxicities in Clinical Practice.

Tamara P. Miller, MD, MSc

Dr. P. Miller explained the current methods of capturing treatment toxicities on pediatric hematology clinical trials, concerns about accuracy of adverse event (AE) reporting and the specific challenges related to pediatric trials.

Conclusions:

- AE reporting is currently performed manually
- AEs are underreported and have inaccuracies
- Wide-ranging challenges exist that prevent accurate capture
- Automated ascertainment of AEs will be crucial to improving upon the current system of AE reporting and toxicity capture for patients on study and in clinical practice.

Manual Ascertainment Underreports AEs

Table 2. Chart Abstraction Data Compared With Clinical Trial Adverse Event Report for Each of the 12 Grade 3 to 5 Toxicities

Toxicity	Chart Abstraction, No. (%)*	Adverse Event Report				
		No. (%)	Sensitivity, % (95% CI)	Specificity, % (95% CI)	PPV, % (95% CI)	NPV, % (95% CI)
Hypertension	28 (3.7)	9 (1.2)	21.4 (8.3 to 41.0)	99.6 (98.8 to 99.9)	66.7 (29.9 to 92.5)	97.1 (95.6 to 98.2)
Hypotension	46 (6.1)	35 (4.6)	56.5 (41.1 to 71.7)	98.7 (97.6 to 99.4)	74.3 (56.7 to 87.5)	97.2 (95.8 to 98.3)
Hypoxia	167 (22.0)	30 (4.0)	17.4 (12.0 to 24.0)	99.8 (99.1 to 100)	96.7 (82.8 to 99.9)	81.0 (78.0 to 83.8)
ARDS	13 (1.7)	11 (1.5)	38.5 (13.9 to 68.4)	99.2 (98.3 to 99.7)	45.5 (16.8 to 76.6)	98.9 (97.9 to 99.5)
Anorexia	307 (40.5)	100 (13.2)	30.6 (25.5 to 36.1)	98.7 (97.1 to 99.5)	94.0 (87.4 to 97.8)	67.6 (63.9 to 71.2)
Typhilitis	27 (3.6)	11 (1.5)	37.0 (19.4 to 57.6)	99.9 (99.2 to 100)	90.9 (58.7 to 99.8)	97.7 (96.4 to 98.7)
DIC	59 (7.8)	7 (0.9)	10.2 (3.8 to 20.8)	99.9 (99.2 to 100)	85.7 (42.1 to 99.6)	92.9 (90.9 to 94.7)
VGS	129 (17.0)	103 (13.6)	78.3 (70.2 to 85.1)	99.7 (98.9 to 100)	98.1 (93.2 to 99.8)	95.7 (93.9 to 97.1)
IFI	10 (1.3)	10 (1.3)	60.0 (26.2 to 87.8)	99.5 (98.6 to 99.9)	60.0 (26.2 to 87.8)	99.5 (98.6 to 99.9)
Pain	324 (42.7)	56 (7.4)	15.7 (12.0 to 20.2)	98.9 (97.3 to 99.6)	91.1 (80.4 to 97.0)	61.1 (57.4 to 64.7)
Seizure	5 (0.7)	2 (0.3)	0 (0.0 to 52.2)	99.7 (99.0 to 100)	0 (0.0 to 84.2)	99.3 (98.5 to 99.8)
Renal failure	6 (0.8)	4 (0.5)	50.0 (11.8 to 88.2)	99.9 (99.3 to 100)	75.0 (19.4 to 99.4)	99.6 (98.9 to 99.9)

Sensitivity <50% for 8 of 12 targeted AEs
66% of AEs were missed
25% of submitted AEs were incorrect

Miller, JCO, 2016

Aflac Cancer and Blood Disorders Center | Emory University

Interventions to Improve Symptoms. Robert Phillips, MD.

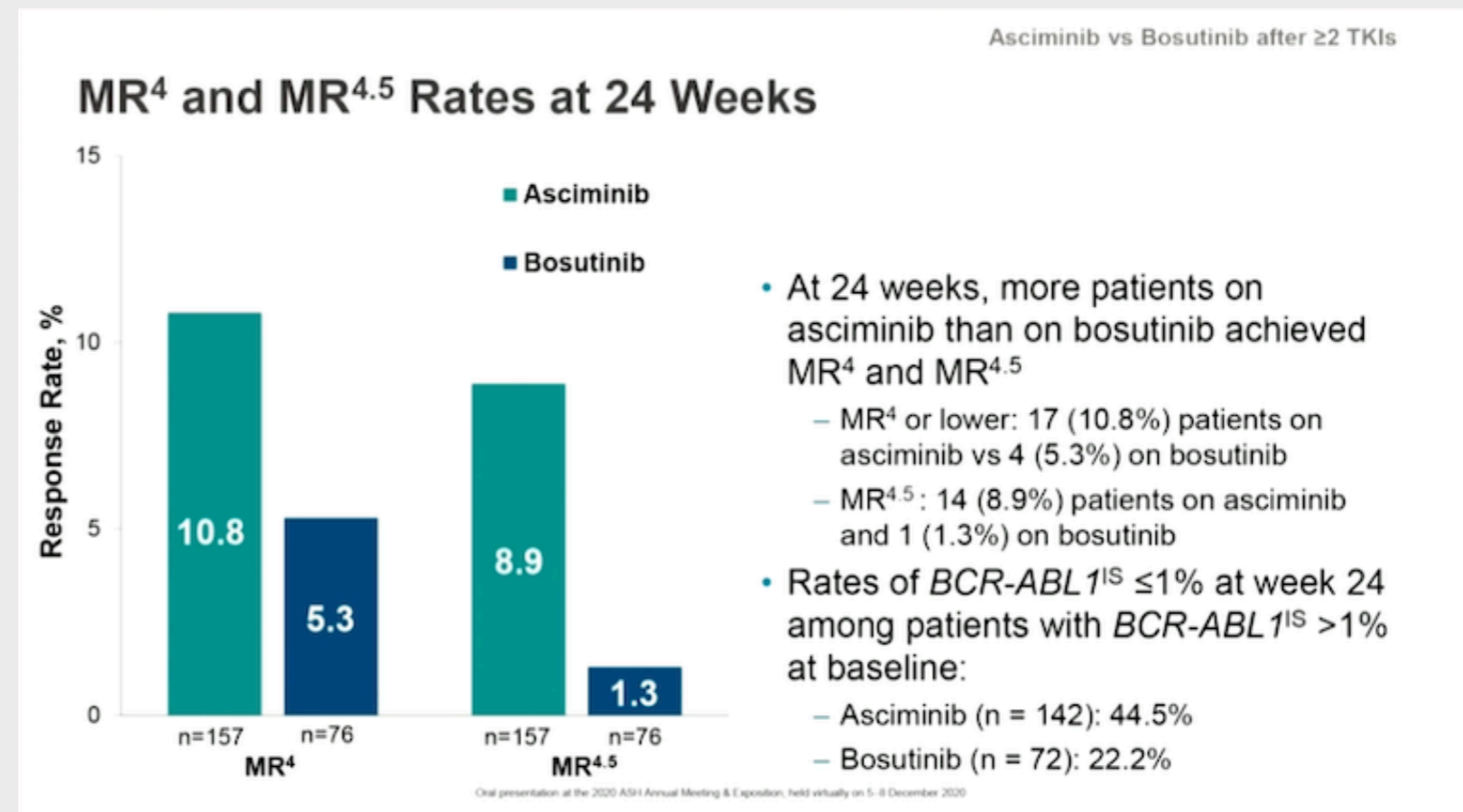
In this session about improving symptom control with children with haematological malignancies, different approaches to control toxicity and aversive symptoms were discussed, from preventative strategies to therapeutic approaches.

Late-Breaking Abstracts Session

LBA-4 Efficacy and Safety Results from ASCEMBL, a Multicenter, Open-Label, Phase 3 Study of Asciminib, a First-in-Class STAMP Inhibitor, vs Bosutinib (BOS) in Patients (Pts) with Chronic Myeloid Leukemia in Chronic Phase (CML-CP) Previously Treated with ≥ 2 Tyrosine Kinase Inhibitors (TKIs). *Andreas Hochhaus, MD.*

Conclusions:

- Asciminib demonstrated statistically significant and clinically meaningful, superior efficacy compared with bosutinib and a favorable safety profile.



- The ASCEMBL results support the use of asciminib as a new treatment option in CML, particularly in patients with resistant/intolerance to ≥ 2 TKIs.
- *BCR-ABL1* remains the key driver of CML even in 3L+ patients; asciminib has demonstrated a

favorable benefit:risk profile in this patient population by its unique ability to Specifically Target the *ABL1* Myristoyl Pocket (STAMP).

ASH 2020



CML ADVOCATES NETWORK CONFERENCE REPORT

A promotional poster for the 62nd ASH Annual Meeting and Exposition. The background is red with a pattern of white and red blood cells. On the left, the American Society of Hematology logo is visible. The text reads: "62nd ASH[®] Annual Meeting and Exposition" in white, "DECEMBER 5-8, 2020" in yellow, and "#ASH20 will be Virtual" in white. On the right, a grid of 15 small video call windows shows various participants, including a woman in a blue polka-dot shirt who is the largest and most prominent.

Celia Marín, Head of Communications and Programme Manager
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