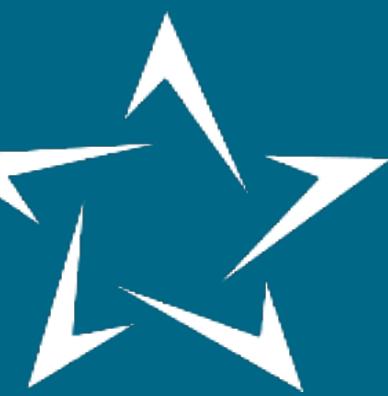


Management of CML in Community Setting: Basis for a Quality Initiative

Shikha Prakash, MBA¹; Laura Gajewski, BS¹; Lorraine Brisbin, MS, MLS¹; Neal Dave PharmD²; Susan Escudier, MD²; Houston Holmes, MD²; Sucharu Prakash, MD²; Andrew Jackson, MD²



Precision Health Informatics¹ Texas Oncology²

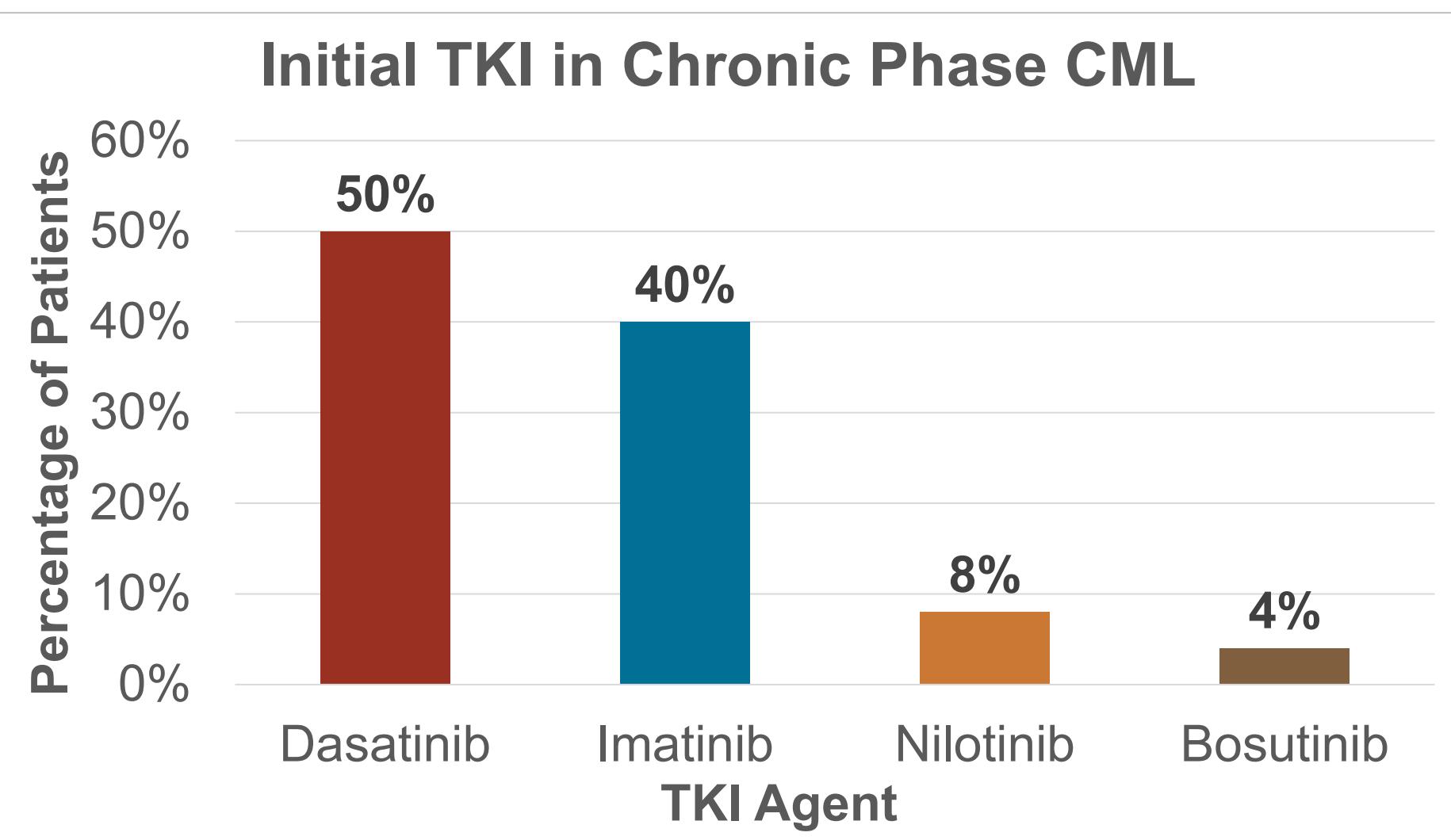
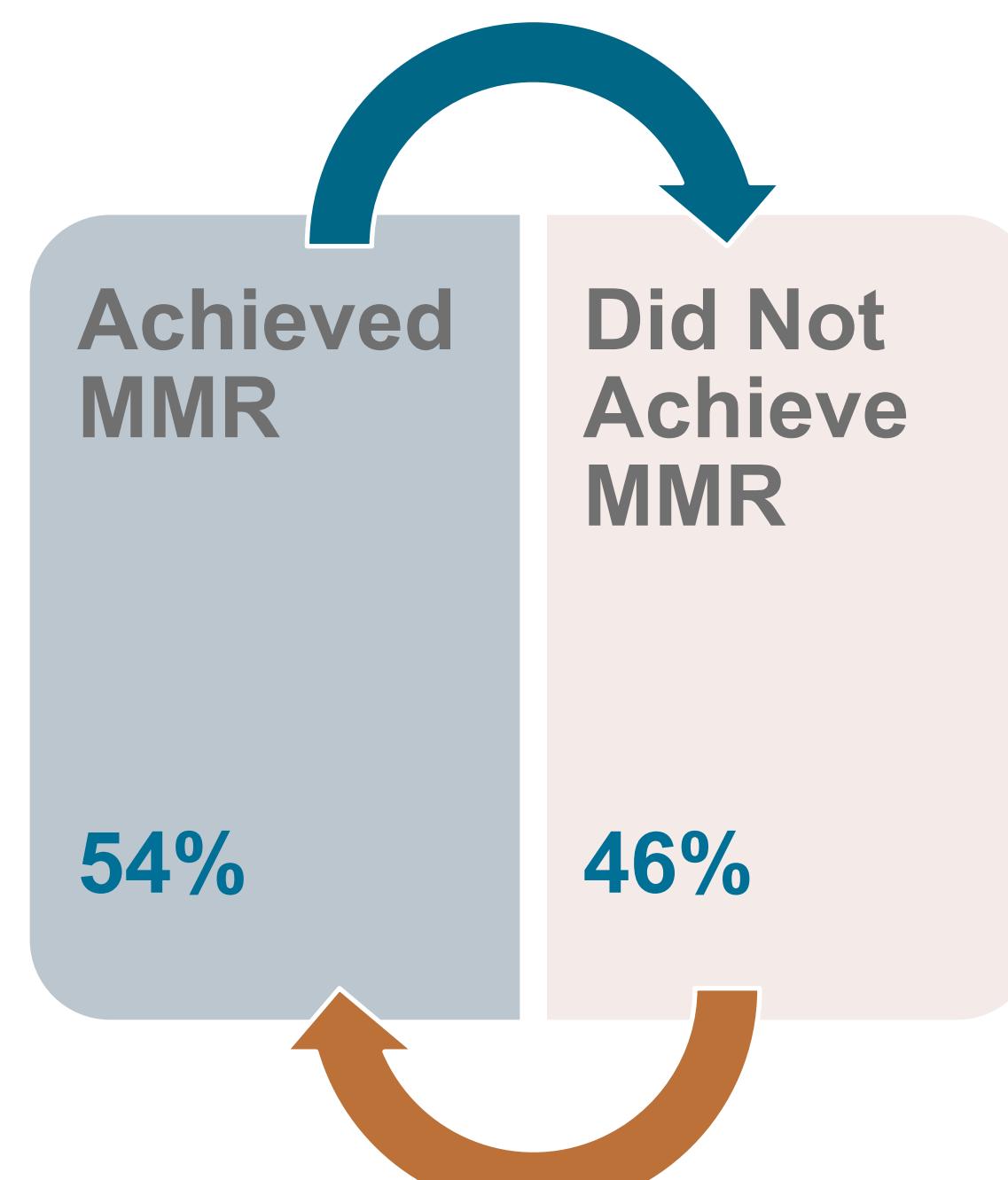
BACKGROUND

- Chronic Myeloid Leukemia (CML) is a disease with excellent long-term outcomes if therapeutic guidelines are followed.
- However, its management remains highly variable across community and academic practices.
- This retrospective study was done to assess baseline treatment pattern across Texas Oncology and the need for a practice-wide initiative to optimize clinical outcomes.

METHODS

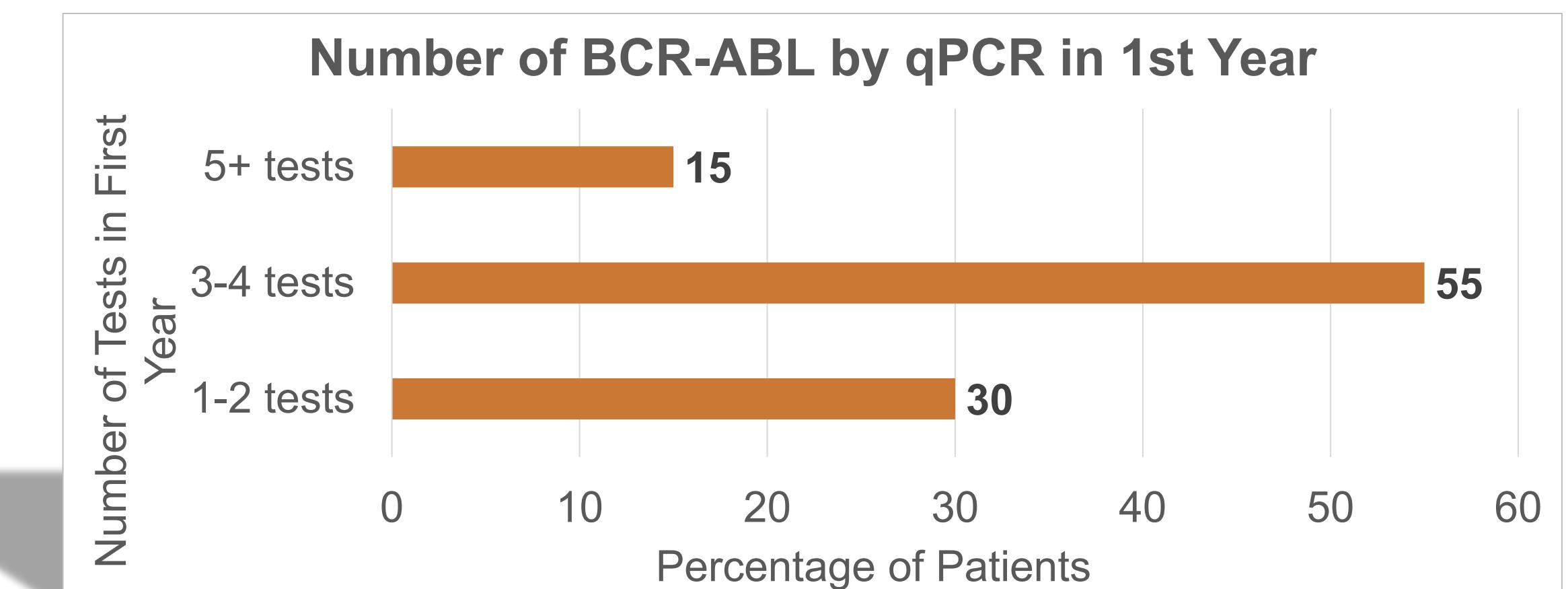
- A random retrospective 50 chart review was done on patients with CML diagnosed over a period from 2016-2023.
- Data was collected from the patient's EMR including sex, geographic location, date of diagnosis, initial tyrosine kinase inhibitor (TKI) prescribed, adverse effects from therapy, achievement of MR3, and if TKI was discontinued due to sustained molecular remission.

Patients Achieving MMR at 12 Months



RESULTS

- The most common initial TKI used was dasatinib 50% followed by imatinib 40%, nilotinib 6%, and bosutinib 4%.
- At the 12-month mark, 46% of patients did not achieve a major molecular response (MR3; BCR-ABL<0.1%).
- During the 1st year of initiating therapy, 66% of patients had 3 or 4 tests of BCR-ABL by qPCR. 14% of patients only had 1 or 2 tests, and 20% had 5 or more tests. 44% of patients required a dose reduction of their initial TKI due to toxicity- Musculoskeletal 14%, gastrointestinal 12%, 8% with pleural effusion, 6% with hematologic toxicity, 1 patient each with liver toxicity and pancreatitis.
- 16% of patients required a change in TKI therapy due to progression or lack of response. 6% of patients had noncompliance as a factor in their therapy and outcomes.
- In 4 patients, TKI was discontinued after sustained molecular remission.



CONCLUSIONS

- This study shows that there is room for improvement in the management of CML. 46% of patients did not achieve MMR at 1-year mark.
- The frequency of BCR-ABL testing was variable and did not adhere to guidelines for all patients. Also, dose reduction of TKI was frequently required.
- Therefore, Texas Oncology is launching a QI to reinforce / recommend management of CML as per guidelines, to improve patient outcomes.
- The key points will be- Risk stratify CML (Sokal criteria) and favor imatinib as first line therapy in low risk and 2nd generation TKI in intermediate / high-risk, check qBCR-ABL at 3,6 and 12 months, and follow milestone-driven management with goal of MR3/BCR-ABL<0.1% at 12 months.

For more information please contact:
shikha.prakash@usoncology.com