The importance of assessment design when capturing reasons for therapeutic change in cancer care

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ABSTRACT

Objectives: Characterizing treatment patterns is common in health economic research. Typical reasons for therapeutic changes include disease progression, adverse events, and physician/patient preference. In this study, chart review design was utilized to investigate the underlying reasons behind an in-class therapy change. It evaluated whether the reasons for change varied as a function of the timing of the therapeutic action; i.e., at treatment discontinuation vs. at initiation of the subsequent therapy.

Methods: This was a retrospective chart review of patients with CLL/SLL, who were previously treated with Bruton tyrosine kinase inhibitor (BTKi), discontinued, and subsequently initiated on another BTKi in the US Oncology Network between 1/2022-9/2023. Structured and unstructured fields were abstracted from the iKnowMed EHR. Descriptive analyses evaluated demographic, clinical, and treatment characteristics. Physicians' reasons for the change were independently assessed at treatment discontinuation and at initiation of the subsequent therapy.

Results: Seventy-one patients switched from ibrutinib or acalabrutinib to zanubrutinib. Among baseline demographics, mean age was 74.2 years; 71.8% were male. Comorbidities within 6 months of zanubrutinib initiation included hypertension (43.7%), atrial fibrillation (19.7%), hypercholesterolemia (9.9%), and other cardiac disorders (9.9%). The median time from diagnosis to subsequent BTKi was 94.7 months; the median follow-up time was 4.8 months. The physician-documented reason for inter-class changes varied, with 64.8% vs. 36.6% of patients switching due to adverse events, 18.3% vs. 50.7% due to disease progression, and 16.9% vs. 12.7% due to other reasons (all BTKi discontinuation vs. BTKi initiation, respectively). The difference was significant (χ^2=16.78, *P*<.001).

Conclusion: The results underscore the importance of considering timing when assessing the reasons influencing therapeutic change. Adverse events were more commonly cited by physicians at treatment discontinuation, while progression was the predominant reason at new treatment initiation. The results provide insight into cancer care clinical decision-making and highlight the value of chart review design for assessing reasons for therapeutic change.