Uncovering Oncologists’ Gaps and Attitudes Toward Biosimilars: Impact of a 2-Phase Educational Program

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Background

- Biosimilars are biological products designed to be equivalent to an already-approved biologic. The first 2 biosimilars were approved for oncology treatment by the FDA in 2017
- We sought to measure oncologists’ understanding of biosimilars to identify and address educational gaps related to their clinical application and acceptance

Methods

- We designed a 2-phase online educational program on biosimilars
  - Questions measuring clinicians’ knowledge and competence were asked before and then repeated after the education was delivered
  - Clinicians also submitted their own questions about biosimilars
  - To uncover key educational gaps, we identified questions with high incorrect responses at baseline, persistence of incorrect responses, and queries submitted by clinicians during Phase 1 of the education
- These gaps were used to refine Phase 2 of the education

Results: Competence in Using Biosimilars

Gaps in Competence

- Among the subset of n = 404 oncology clinicians who answered at least 1 baseline or posteducation question in Phase 1 or Phase 2, we identified persistent pre-education misunderstandings about biosimilars

Oncology Clinicians’ Pre-education Gaps About Biosimilars

Mistakenly believed efficacy could differ from reference agent (n = 238)

Did not understand substitution rules in the US (n = 220)

Did not understand extrapolation of indications (n = 114)

Switching, substitution, and extrapolation of indications were also common concerns identified from clinician-submitted questions in Phase 1

Improvement in Competence

- After Phase 2 of the education, oncology clinicians significantly improved their competence in all 3 domains

Results: Clinician Attitudes

Likelihood of Prescribing Biosimilars

- Oncology clinicians noted that patient education is a key factor required for acceptance of biosimilars

Believed patients will accept biosimilars with appropriate explanation (n = 60)

Switching, substitution, and extrapolation of indications were also common concerns identified from clinician-submitted questions in Phase 1

Conclusions

- Oncology clinicians’ gaps in understanding of the efficacy, substitution, and indications of biosimilars may explain why some are reluctant to consider this new treatment option
- Similar baseline gaps were observed in a separate CCO video program available at a similar time (Nov 2017 to April 2018)
- This educational program increased oncology clinicians’ competence with biosimilars, potentially removing barriers to their use
- Similar education may further increase oncology clinicians’ willingness to consider biosimilars as a treatment option for their patients