Consensus and Disagreement Among Experts in Treatment of Patients With HER2+ Early-Stage Breast Cancer Suggests an Unmet Need for an Online Decision Support Tool

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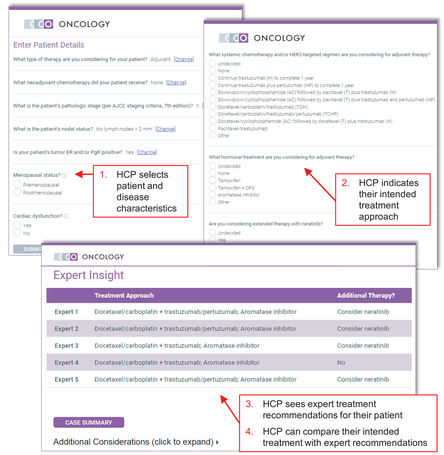
Background

Tx options for HER2+ EBC are continuing to evolve, increasing the complexity of Tx decision making. As Tx options expand, so does the need for online decision aids. The aim of this analysis was to assess real-world global practice patterns for HER2+ EBC and compare them with recommendations from US experts based on patient cases entered by healthcare providers (HCPs) into an online decision support tool designed to provide specific, patient-individualized expert recommendations.

Methods

- 5 experts provided Tx recommendations for 270 unique case scenarios for patients with HER2+ EBC (compiled in August 2018)
- Individual tool scenarios were defined by key patient and disease characteristics, including treatment setting, tumor size/nodal status, hormonal receptor status and menopausal status, relevant treatment history, comorbidities, or Tx-related AEs
- To use the tool, HCPs entered their patient's information and their intended Tx plan. Expert Tx recommendations for that specific patient are then provided to the HCP
- Tool online at **clinicaloptions.com/HER2_EBC_Tool**

Tool Screenshots (Examples)



Results

Tool Participant (HCPs) Demographics

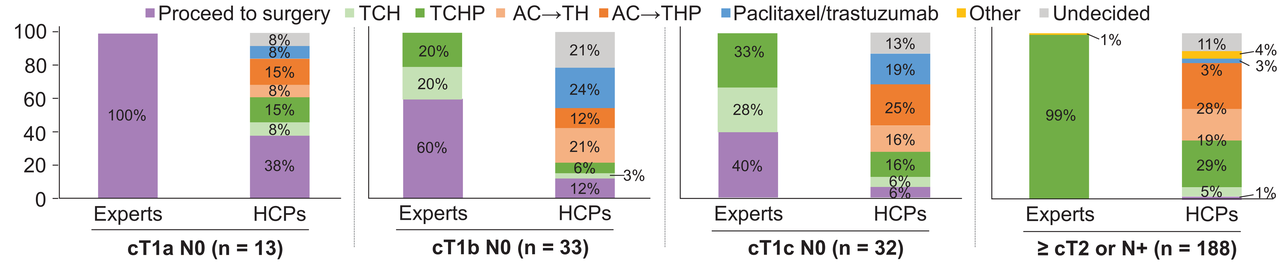
- Analyzed 571 patient cases entered by 338 HCPs between September 12, 2018, and November 12, 2018
- Approximately 80% of users were medical oncologists
- Approximately 25% of users were US based and 75% were outside the US
  - US (n = 89), Asia (n = 85), Europe (n = 73), Other (n = 91)

Case Demographics

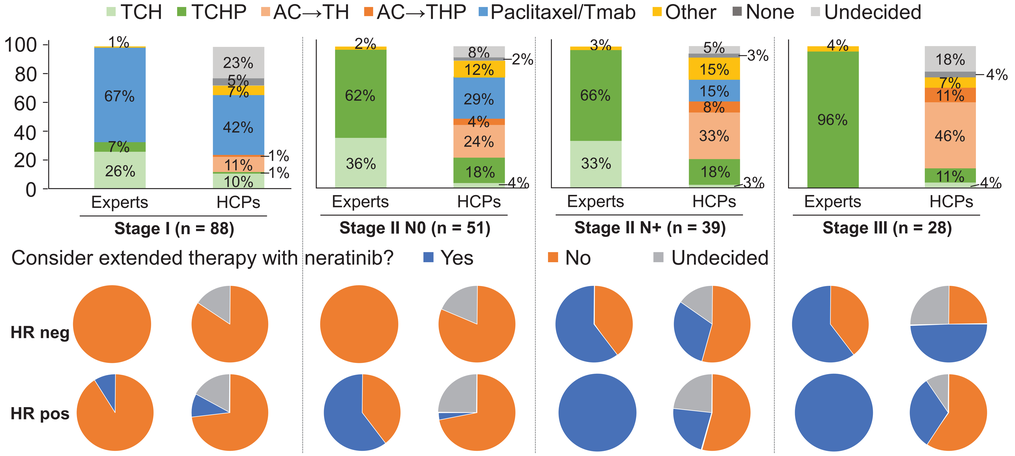
Table 1. Cases Entered Into Tool, by Tx Setting

Setting	n (%) (N = 571)
Neoadjuvant	267 (47)
Adjuvant	304 (53)

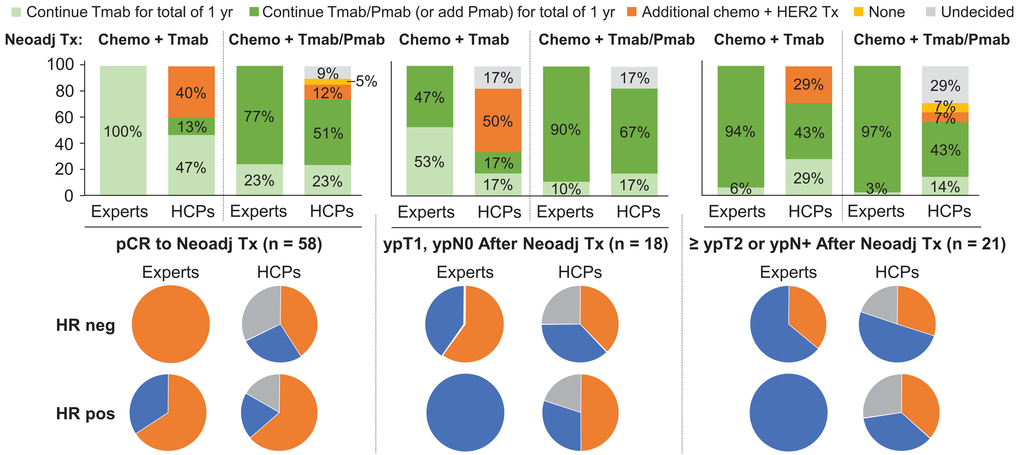
NEOADJUVANT Tx DECISIONS



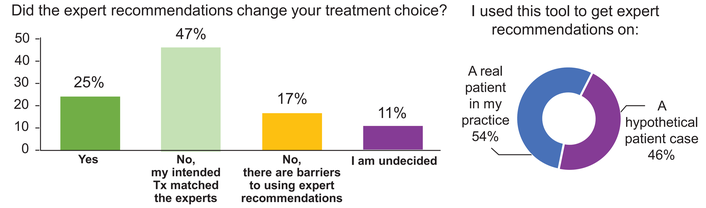
ADJUVANT Tx DECISIONS: No Prior Systemic Tx



ADJUVANT Tx DECISIONS: After Systemic Neoadjuvant Tx



CLINICAL IMPACT



Conclusions

- There were large differences between experts and HCPs regarding sequencing of chemotherapy and surgery for smaller tumors in the neoadjuvant setting, and there was marked variations between experts' and HCPs' choice of therapy for those receiving neoadjuvant Tx
  - Many HCPs chose anthracycline-based therapy, whereas experts generally recommend non-anthracycline–based chemotherapy in this setting
- Similarly, there was a wide variation in the choice of adjuvant therapy among HCPs vs expert recommendations for all patient subgroups
  - For those without prior neoadj chemotherapy, HCPs chose anthracycline-based Tx and many used paclitaxel/trastuzumab for patients not included in the APT clinical trial
  - For those with previous neoadj chemotherapy, up to 50% of HCPs would use additional chemotherapy despite lack of evidence
- Extended adjuvant therapy with neratinib was beneficial based on the ExteNET study that enrolled stage II-IIIc patients; however, HCPs considered neratinib less often than experts for eligible patients, with up to 25% indicating uncertainty regarding appropriate use of neratinib
- This online tool reveals significant and clinically relevant gaps between expert consensus and Tx decisions made by HCPs. Expert recommendations often reinforced or changed HCP's treatment plan, highlighting the need for ongoing education and the potential of an online tool to improve clinical outcomes for patients with HER2+ EBC