

Practice gaps and challenges integrating new immuno-oncology agents in the treatment of cancer patients in the US: A mixed-method study

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Background & Objectives

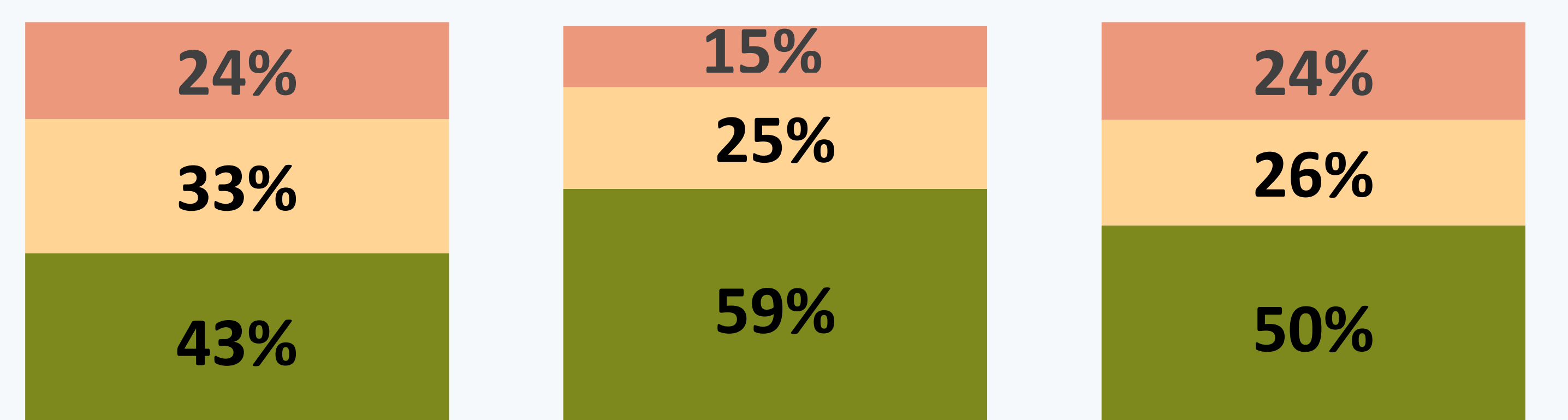
- Previous research indicated challenges integrating new immuno-oncology agents (IOAs) and predictive immune biomarkers into practice.
- This study aimed to identify the underlying causalities of these challenges: the barriers and clinical gaps that oncologists face
- Better understanding of these issues will
 - Enable the development of relevant and impactful continuing medical education
 - Improve support for oncologists' treatment decision-making

Methods

- Mixed-methods educational needs assessment of healthcare providers involved in the care of cancer patients in the United States
- The data and findings here refer to oncologists only, though multiple specialties were included in this study (Rheumatologists, ED physicians, Pulmonologists, Pathologists, Interventional radiologists, Clinical pharmacists, PAs, NPs)
- Semi-structured interviews and discussion groups
 - Thematically analyzed to identify challenges, barriers and underlying causalities
 - Findings informed the development of surveys
- Online surveys to validate and quantify findings

Results

- 660 health care providers participated in this study, including 105 oncologists (17 interviews and 88 surveys)
- Oncologists question the value of new agents, potentially due to difficulties keeping up with emerging data

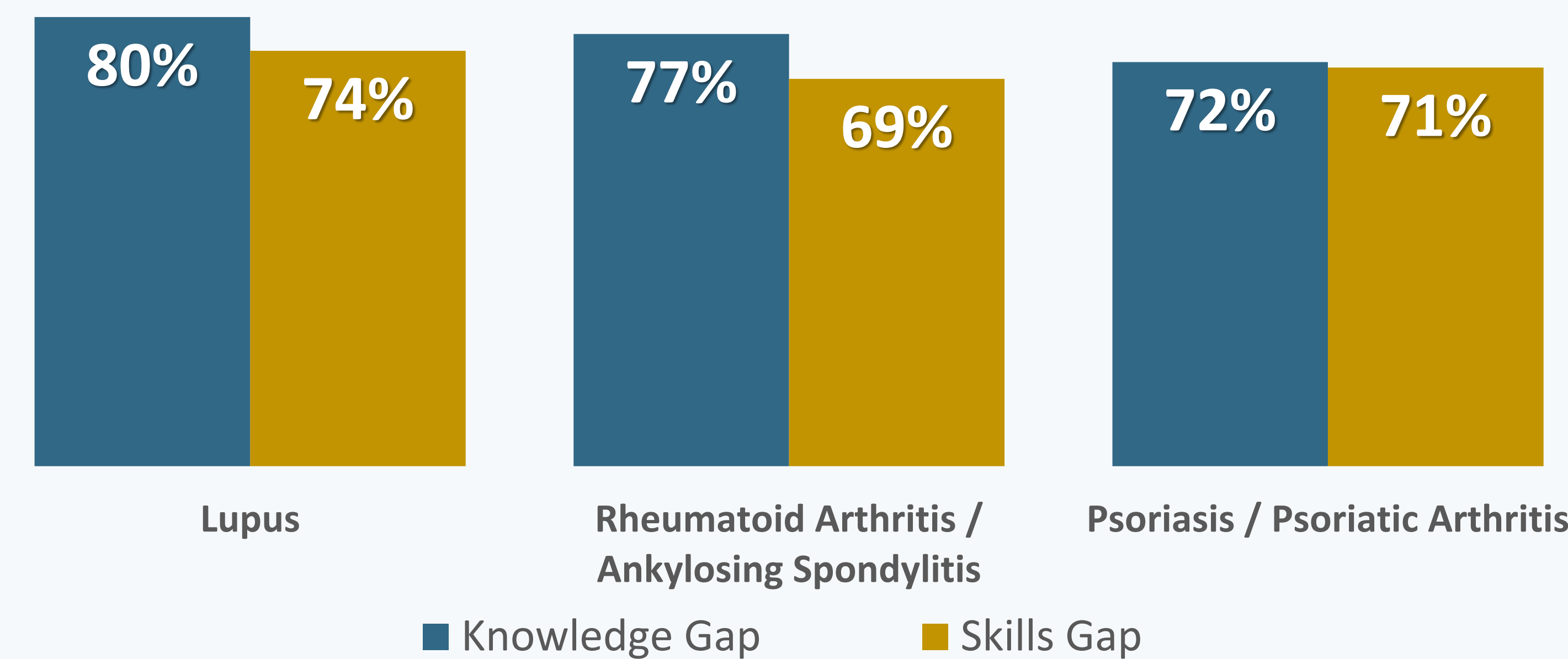


■ Disagree or strongly disagree ■ Neither agree nor disagree ■ Agree or strongly agree

“We have all these results but I think that ultimately what we really need is a better algorithm to when to use all these new drugs, because the number of drugs is exploding, the amount of knowledge, and it is hard to keep up with.”
-Oncologist, New Jersey

Results

- 56% of oncologists reported sub-optimal knowledge of the interactions between IOAs and the tumor's micro-environment, while 62% reported sub-optimal skills determining which IOA to select based on this information.
- Oncologists reported sub-optimal knowledge of best practices for using IOAs to treat cancer in presence of an autoimmune disease, and sub-optimal skills weighing the risks and benefits of prescribing IOAs for these profiles



“We are desperately looking for how to prevent resistance developing in a tumor that is partially responded, also predicting who may not respond and not putting them through this expensive, costly risky treatment, and find better immunotherapy for the half of 50% who don't respond at all.”
-Oncologist, Texas

- Barriers to having predictive biomarkers inform treatment decisions included a need for more skills, knowledge and better communication between specialists

- 45% Skill gap identifying viable treatment options based on pharmacodiagnostic test reports
- 60% Skill gap identifying sites where sufficient amount of markers can be found
- 64% Knowledge gap “the specimen requirements for each pharmacodiagnostic test that my team and I are ordering”
- 74% Agreement with “I expect other HCPs in charge of completing the biopsy to know exactly how much tissue is required”
Only 55% pathologists agree “I know exactly which treatments they want me to test for, when I receive pharmacodiagnostic tests orders from clinicians”
- 69% Report “tissue requirements to perform desired pharmacodiagnostic test are not communicated to professionals performing biopsy” as a top 3 barrier

“Different companies have used different biomarkers, different ways to test... a marker could make one person positive, 50% positive...and they're different scores for different cancers, and so it's really challenging to know what a positive means”
- Oncologist, Minnesota

“If you do the individual testing, EGFR, like in lung cancer, then you're not sure whether you have enough tissue left for the next-gen sequencing.”
- Oncologist, Nevada

Strategies for oncologists to optimize integration of IOAs:

- ✓ Seek sustainable approaches to increasing knowledge base
 - Find practice guidelines in formats that can be used at point of care
 - Enroll for ongoing CME to systematize clinical updates in new innovations and applications
- ✓ Prioritize inter-professional practice-based learning activities
 - Improve decision making skills
 - Improve coordination of care, communication
- ✓ Use study findings to identify gaps in own practice

Discussion & Future directions

These findings demonstrate the need to further support oncologist as they face challenges integrating new IOAs and predictive immune biomarkers into practice. Given the wide array of IOAs becoming available each year, addressing the knowledge, skills, confidence and attitude gaps identified in this study could help improve health care delivery and potentially optimize outcomes for cancer patients.

Future studies could expand on these findings by examining if these gaps are present in other countries, in order to develop international educational activities.

Acknowledgements

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