ASSESSING THE OVERALL IMPACT OF BMS-SUPPORTED IME PROGRAMS IN IMMUNO-ONCOLOGY

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PROBLEM

CME programs have long been evaluated to determine outcomes associated with individual activities. Outcomes associated with individual educational activities have historically demonstrated the effectiveness of CME on closing educational gaps. However, to date there have been little means for assessing the collective impact of an entire portfolio of educational activities over time.

OBJECTIVE

The goal of this study was to evaluate the overall impact of the CME programming related to immuno-oncology that was supported by Bristol-Myers Squibb (BMS) during 2014. The impact assessment focused on how the practices and perceptions of oncologists who participated in CME differ from those of oncologists who did not participate, in order to demonstrate that the CME programming was effective in closing previously identified practice gaps.

METHODS

1 NEEDS ASSESSMENT
- conducted in 2013 regarding emerging immunotherapies
- case vignettes focused on NSCLC and melanoma
- assessed oncologist practice, knowledge, attitudes, and barriers

2 EDUCATION SUPPORTED
- aligned to identified gaps from needs assessment
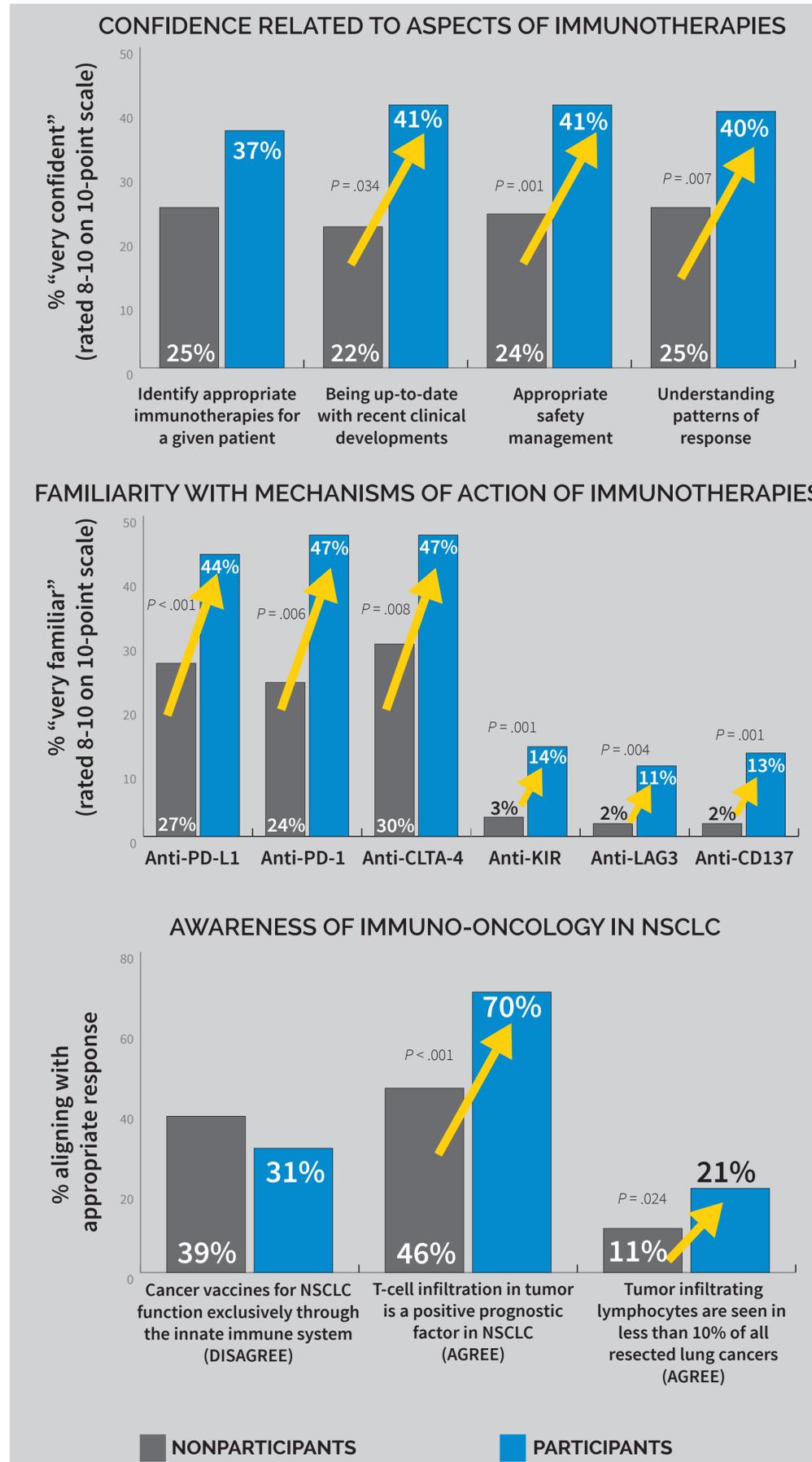- targeted to oncologists and other healthcare providers

3 FOLLOW-UP ASSESSMENT
- conducted in 2015
- concentrated on gaps & themes from initial assessment
- targeted to US-practicing medical and hematologic oncologists
- divided oncologists by participation in BMS-supported activities
    activities included live (18 programs) and online (17) formats
    nonparticipants: participated in no BMS programs
    participants: engaged in 1 or more program during 2014

SAMPLE

		Nonparticipants n = 119	Participants n = 131
Physician specialty	Medical oncology	65%	69%
	Hematology/Oncology	35%	31%
Primary practice setting	Community	71%	62%
	Academic	29%	38%
Major professional activity	Direct patient care activities	97%	98%
	Medical research	3%	2%
Practice location	Urban	49%	58%
	Suburban	41%	38%
	Rural	10%	4%
Present employment	Group practice	63%	60%
	Medical school	16%	17%
	Non-government hospital	9%	15%
	Solo practice	8%	6%
	Other (HMO, government)	3%	3%
New patients seen per month		22	29
Investigator in immunotherapy clinical trials		19%	25%
Percent of patients with NSCLC, mean		19%	27%
Percent of patients with melanoma, mean		7%	16%
Percent of melanoma patients treated with immunotherapy, mean		33%	41%

PARTICIPANT VS NONPARTICIPANT ANALYSIS

CONFIDENCE RELATED TO ASPECTS OF IMMUNOTHERAPIES

% "very confident" (rated 8-10 on 10-point scale)

- Identify appropriate immunotherapies for a given patient: 25% / 37%
- Being up-to-date with recent clinical developments: 22% / 41% (P = .034)
- Appropriate safety management: 24% / 41% (P = .001)
- Understanding patterns of response: 25% / 40% (P = .007)

FAMILIARITY WITH MECHANISMS OF ACTION OF IMMUNOTHERAPIES

% "very familiar" (rated 8-10 on 10-point scale)

- Anti-PD-L1: 27% / 44% (P < .001)
- Anti-PD-1: 24% / 47% (P = .006)
- Anti-CLTA-4: 30% / 47% (P = .008)
- Anti-KIR: 3% / 14% (P = .001)
- Anti-LAG3: 2% / 11% (P = .004)
- Anti-CD137: 2% / 13% (P = .001)

AWARENESS OF IMMUNO-ONCOLOGY IN NSCLC

% aligning with appropriate response

- Cancer vaccines for NSCLC function exclusively through the innate immune system (DISAGREE): 39% / 31%
- T-cell infiltration in tumor is a positive prognostic factor in NSCLC (AGREE): 46% / 70% (P < .001)
- Tumor infiltrating lymphocytes are seen in less than 10% of all resected lung cancers (AGREE): 11% / 21% (P = .024)

NONPARTICIPANTS   PARTICIPANTS

CME PARTICIPATION INCREASED...

KNOWLEDGE OF IMMUNO-ONCOLOGY

Confidence in understanding the role of the immune system in cancer

Knowledge of the role of CD8+ T-lymphocytes in cancer vaccines

PERCEPTIONS OF IMMUNO-ONCOLOGY

Familiarity with safety and efficacy data

Awareness of the mechanism of action of key immunotherapy classes

ROLE OF IMMUNO-ONCOLOGY

Familiarity with the mechanism of action of therapies targeting CTLA-4

Use of KRAS mutation analysis

Awareness that tumor-infiltrating lymphocytes are a positive prognostic marker

CONCLUSIONS

This study presents a novel approach of going beyond individual activity-level outcomes to obtaining outcomes data across multiple programs without the need to aggregate and compare data findings at the individual activity level. Significantly, the findings of this study demonstrate that CME makes a broad and profound impact on physicians. This information is critical in the continuing challenge of demonstrating the impact of CME. The methods used in this study can be applied to a wide range of therapeutic areas and target audiences and will therefore greatly improve the ability of CME supporters to appraise the outcomes of their investments and efforts.

ACKNOWLEDGEMENTS