

Exploring the Impact of Immunotherapy on Cancer Patients' Quality of Life

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Background

Immunotherapy (IO) has demonstrated superior clinical benefits compared to previous anticancer treatments in multiple tumors. A better understanding of the patients' IO patient experience in the real world will allow health care professionals to develop effective and supportive resources, help improve clinical practice, and assist patients in managing the cancer experience.

Study Aims

To describe IO cancer patient experiences, including the physical, functional, and emotional dimensions, patient-provider communication and treatment decision-making, financial burden, and unmet cancer care needs.

Methods

This cross-sectional qualitative study consisted of cancer patients who reported receiving IO targeting PD1/L-1. This study included three independent focus groups (4-8 members in each group); participants were assigned to a group based on how long they have been receiving treatment prior to enrolling in the study: Focus Group 1 (0-6 months), Focus Group 2 (6-12 months), and Focus Group 3 (12+ months). Thematic analyses followed a deductive approach. Codes and themes were generated based on the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire (EORTC QLQ-C30). This study received IRB approval from Ethical & Independent Review Services.

Inclusion Criteria: (1) men or women 18 years or older; (2) have a cancer diagnosis; (3) currently receiving IO targeting PD1/L-1 receptors; and (4) willing and able to sign informed consent and participate in the focus group. Respondents were categorized into three groups: receiving IO for 0- 12 months, 12- 24 months, and 24+ months.

Participants

Table 1. Focus group participant sample characteristics

Focus Group 1: Individuals who had received 0- 12 months of immunotherapy targeting PD1/L-1 receptors							
ID#	Age	Race/ Ethnicity	Cancer Diagnosis	Diagnosis year	Stage at diagnosis	Current stage	Time on immunotherapy
ID1	59	White	Lung	2006	I	III	8 months
ID2	56	White	Nodular melanoma	2013	I	IV	8 months
ID3	58	White	Nodular melanoma	2020	III	III	2 months
ID4	62	White	Lung	2019	IV	IV	4 months
ID5	45	White	Nodular melanoma	2018	III	IV	2 months
ID6	45	White	Nodular melanoma	2014	III	III	6 months
Focus Group 2: Individuals who had received 12- 24 months of immunotherapy targeting PD1/L-1 receptors							
ID1	76	White	Lung	2018	IV	IV	18 months
ID2	51	White	Nodular melanoma	2008	II	IV	17 months
ID3	63	White	Tonsil	2017	IV	IV	24 months
ID4	41	Asian	Sarcoma	2018	high active	high active	21 months
ID5	48	White/Asian	Bladder	2019	IV	IV	13 months
ID6	62	White	Squamous cell carcinoma	n/a	III	n/a	11 months
ID7	58	White	Lung	2019	IV	IV	19 months
ID8	70	White	Lung	2019	IV	IV	17 months
Focus Group 3: Individuals who had received 24+ months of immunotherapy targeting PD1/L-1 receptors							
ID1	63	Native American	Non-small cell adenocarcinoma	2018	IV	IV	25 months
ID2	51	White	Nodular melanoma	2013	I	IV	30 months
ID3	46	White	Small cell ovarian	2015	IV	IV	48 months
ID4	77	White	Non-small cell adenocarcinoma	2015	IV	IV	48 months

Table 2. Focus Group Findings Based on Treatment Group

Category	Similarities	Unique to Group 1 (0-12 months on IO)	Unique to Group 2 (12-24 months on IO)	Unique to Group 3 (24+ months on IO)
Physical/symptom functioning: Side effects	Fatigue, joint pain, thyroid issues, headaches, itching	None	None	None
Physical/symptom functioning: Impact of side effects on daily life	Cannot accomplish as much, have days where they have trouble getting out of bed due to fatigue	None	None	None
Psychological/emotional functioning: Sources of anxiety	Scan results	None	None	None
Psychological/emotional functioning: Shifts in perspective over time	All participants said they had moved on from the initial shock of the diagnosis and anxiety over their first IO treatment	After the initial anxiety around beginning treatment, many were excited about the rapidly evolving immunotherapy treatment landscape	Shifting perspective to realize they might live longer than they realized and the various implications of that realization	Described developing a big picture outlook on life (e.g., were happy to still be alive and thankful for modern medicine)
Social functioning: Support groups	Each group had participants who had positive feelings towards support groups and participants who were not interested in support groups	Were more focused on figuring out how to manage the logistics of treatment, treatment side effects, and other issues instead of getting plugged into a support group	Many had found support groups and participated in some form. Some found them helpful while others found them too depressing	Were more involved in online groups sharing information about new treatments and developments than emotional support groups
Social functioning: Significant others	All discussed tension caused by shifting roles	Still figuring out both their own and their significant other's new role as patient/caregiver. Adjusting to shift in responsibilities in daily chores.	Tension caused by the fact that these participants no longer "look sick" but are still unable to do things like help around the house	Had established roles with their significant other; had overcome any initial relationship tension
Work and career	Struggling with a sense of lost identity due to changes in work status	Still struggling to figure out the correct work/life balance	Have figured out how to redirect their energy once used for work into other venues such as non-profits	Struggling to figure out how to find purpose now that they realize this might be the new normal
Financial	Insurance and billing confusion cause added stress	Struggling to figure out what's covered, still learning the ins and outs of billing	Have figured out how to best utilize the healthcare system and schedule scans, appointments, etc. at specific times in order to maximize their insurance coverage	Are more concerned about non-medical expenses like mortgages, etc.

Results

• Participants in all groups reported fatigue as the most common side effect, stated they had less ability to do daily tasks due to fatigue, found that other patients with the same diagnosis provided the greatest emotional support, and had concerns regarding finances/careers. Most participants in all groups also reported they had adjusted to their new normal and were satisfied with the coordination between members of their healthcare team and communication with their oncologist.

Differences between Groups

- Participants in Group 1 were more concerned with recurrence and trying to figure out their new roles at home and at work.
- Participants in Focus Groups 2 and 3 were mostly unable to work due to diagnosis/treatment and reported this was a difficult adjustment that affected their identity.
- Focus Group 3 participants were particularly concerned about non-medical expenses and reported receiving insufficient information about IO.

Implications

A better understanding of the IO cancer patient experience at different time points in treatment will allow:

- Healthcare providers to address unmet needs from the IO patient perspective
- Increase healthcare professionals' awareness of IO patients' challenges and support good communication practices.

This will aid health care professionals working towards the goal of improving patient well-being, ultimately contributing to treatment adherence in this population