



# Perception of Benefits and Risks of Treatments in Patients with Metastatic NSCLC with *EGFR**Rex20ins*

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## Background

- Treatments for advanced/metastatic non-small cell lung cancer (NSCLC) with epidermal growth factor receptor (*EGFR*) exon 20 insertions (*ex20ins*) are evolving
- Amivantamab<sup>1</sup> and mobocertinib<sup>2</sup> are novel *EGFR* targeted therapies that were approved by the United States (US) Food and Drugs Administration for use in this patient population
- This study was conducted to identify treatment-related attributes that impact patient preference for treatment with *EGFR* targeted therapies in advanced/metastatic NSCLC with *EGFR**Rex20ins* in the US
- To achieve this objective, it is important to understand patients' perceptions of the benefits and risks of treatments that would be considered in discussions of treatment options

## Methods

- Adult patients with clinician-diagnosed, NSCLC with *EGFR**Rex20ins* were recruited through the Exon20 group (a multistakeholder coalition group)
- A targeted literature review was conducted to identify relevant treatment attributes previously explored in qualitative and quantitative preference studies in NSCLC
- Semi-structured qualitative interviews (90-min) were conducted using an interview guide that was developed based on concepts identified from the targeted literature review
- The interview consisted of 3 parts, as shown in **Table 1**
- Notably, participants 1) ranked four benefit measures by meaningfulness, 2) rated adverse events (AEs) they had experienced by the impact to their quality of life (QoL) on a scale of 0 (least bothersome) to 10 (most bothersome), and 3) selected 3 most important AEs to avoid (regardless of AE experience)
- Interview data were analyzed using descriptive and content analyses

**Table 1. Structure of qualitative interviews<sup>a</sup>**

Part 1: Warm-up
<ul style="list-style-type: none"><li>Shared experience with symptoms and their impact on QoL</li><li>Shared participants' journey to diagnosis</li></ul>
Part 2: Treatment Benefits
<ul style="list-style-type: none"><li>Discussed how oncologists communicated treatment benefit</li><li>Discussed potential treatment benefits that were important to participants</li><li>Ranked the four benefit measures by meaningfulness</li></ul>
Part 3: Treatment Risks
<ul style="list-style-type: none"><li>Discussed AEs participants have experienced and rated how bothersome the AEs were by the impact on QoL</li><li>Discussed AEs participants were concerned about if not experienced</li><li>Selected the 3 AEs that were most important to avoid</li></ul>

<sup>a</sup>The interview also tested regimen and the survey instrument; however, this poster reports findings only from the first 3 parts of the interview.

AE, adverse event; QoL, quality of life.

## Results

### Participant characteristics

- 15 participants completed the interviews

- A majority of the participants (60.0%) were diagnosed with NSCLC 2–5 years ago; participant characteristics are shown in **Table 2**
- All participants had Stage IV NSCLC with *EGFR**Rex20ins*, almost all participants had received at least one line of treatment (94%), and a majority of the participants currently exhibited evidence of disease (67%)

**Table 2. Participant characteristics**

Characteristic	N=15
Age, years; mean (range)	60 (43-67)
Gender	
Female; n (%)	8 (53.0%)
Male; n (%)	7 (47.0%)
Current stage of cancer	
Stage IV; n (%)	15 (100.0%)
Diagnosed with NSCLC	
Less than 6 months ago; n (%)	1 (6.7%)
6 months – 1 year ago; n (%)	0 (0.0%)
1–2 years ago; n (%)	5 (33.3%)
2–5 years ago; n (%)	9 (60.0%)
Current remission <sup>a</sup> status	
Not achieved remission; n (%)	8 (53.3%)
Currently in remission; n (%)	5 (33.3%)
Relapsed after remission; n (%)	2 (13.3%)
Previously on treatment for NSCLC	
No; n (%)	1 (6.7%)
Yes; n (%)	14 (94.3%)
Currently on treatment for NSCLC <sup>b,c</sup>	
Chemotherapy; n (%)	5 (33.3%)
Monoclonal antibody; n (%)	4 (26.7%)
Others or clinical study drug/investigational agent; n (%)	3 (20.0%)
No treatment; n (%)	3 (20.0%)
<i>EGFR</i> tyrosine kinase inhibitor; n (%)	2 (13.3%)
Immuno-oncologic agent; n (%)	1 (6.7%)
Other targeted therapy; n (%)	1 (6.7%)

<sup>a</sup>Absence of active disease for a period of at least 1 month; <sup>b</sup>Not mutually exclusive;

<sup>c</sup>Radiation and surgery were both 0 (0.0%).

*EGFR*, epidermal growth factor receptor; NSCLC, non-small cell lung cancer.

### Symptoms

- Participants most commonly reported symptoms such as cough, fatigue, shortness of breath, and pain in the time leading up to diagnosis
- Participants indicated symptoms largely impacted overall QoL, specifically with regards to their ability to go to work outside of their home or undertake daily activities

Symptoms

“I couldn’t sleep ... I’d just cough all night ... without sleep you just become miserable ... made me depressed ... went on for weeks of over-the-counter medication...” – *US-004*

“I can’t walk as far as I would normally be able to.” – *US-009*

“I had to work. I had two jobs, and it was hard to get up the stairs for both.” – *US-005*

Treatment benefits

“I think the biggest aspect, is reducing tumour size and keeping it stable.” – *US-009*

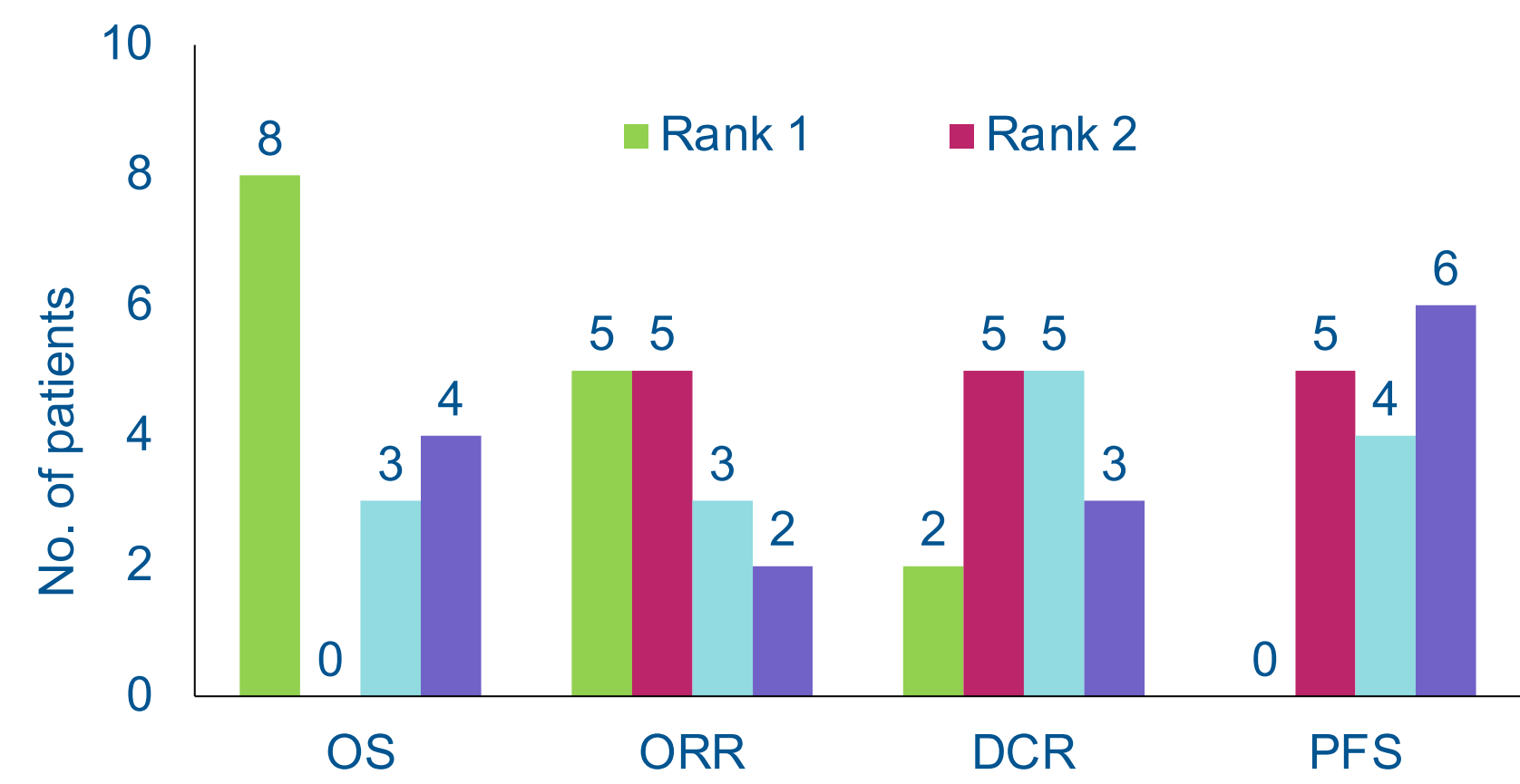
“...because in these 6 months there could be new drugs coming out, so you are buying time, for a more advanced discovery in treatment.” – *US-015*

“...if it disappears, I mean that’s a really, that’s probably the best-case scenario.” – *US-006*

### Treatment benefits

- Acknowledging that they had been told by their oncologists or other healthcare providers that cure was a remote possibility, participants perceived treatment as effective when they experienced symptom relief (decrease in pain, improved breathing, reduced coughing), tumor regression or lack of progression according to scans, enhanced walking ability, improved QoL and/or reduced adverse effects
  - Acknowledging there is no cure, some patients hoped to live longer to buy them time until a new treatment is developed
- Participants were introduced to four different outcomes that measure how well cancer treatments work; namely, overall survival, overall response rate, disease control rate, and progression-free survival (PFS)
- Overall survival was most often ranked as most meaningful to measure treatment efficacy (53%), followed by overall response rate (ORR) (33%) and disease control rate (DCR) (13%); none of the participants identified PFS as the most meaningful measure (**Figure 1**)
- Participants stated they would like to know the probability the cancer would shrink or remain stable with the treatment
  - Some participants interpreted PFS as having a negative connotation that the cancer will relapse based on the provided definition “time until cancer worsening”
  - Even when the subsequent round of interviews administered this ranking exercise with the revised definition “time cancer remains controlled”, PFS was not perceived as meaningful a measure as the others as participants still felt that the cancer is not improving and will eventually relapse

**Figure 1. Ranking of benefit measures**



DCR, disease control rate; ORR, overall response rate; OS, overall survival; PFS, progression-free survival.

### Treatment risks: AEs

- AEs were discussed based on participants' experience and information they heard from healthcare professionals and fellow patients. While specific AEs associated with targeted therapy were probed, not all participants had undergone these specific treatments. Instead, their experience of AEs was based on any treatments they had received for NSCLC
- Fatigue was the most frequently experienced AE (87%), followed by nausea and vomiting (67%), rash (67%), diarrhea (67%), and infusion-related reactions (60%) (**Figure 2**)
- In terms of the impact of AEs on QoL, while mild/moderate forms of these AEs were mostly perceived as somewhat bothersome, severe forms were considered extremely bothersome
- In the exercise that required participants to select 3 most important AEs to avoid, participants reported heart problems (n=11; 73%), interstitial lung disease (ILD) (n=9; 60%), and severe nausea and vomiting (n=9; 60%) (**Figure 3**)
  - Participants' concerns about heart problems and ILD were due to the lack of available treatments for managing these conditions and concerns of further complications leading to stroke or heart attack or impacting their lungs
  - However, participants indicated that regular monitoring for cardiac diseases and ILD would alleviate their concerns
  - Participants felt control over AEs such as diarrhea, nausea and vomiting, and rash, as these can be managed by medications

### Limitations

- Although online qualitative data collection methods can offer a valuable approach for investigating preferences within vulnerable patient populations, they generally include small sample sizes and the findings may not be generalizable to all participants with NSCLC with *EGFR**Rex20ins* and are often inconclusive
- Some participants may have ranked the measures, particularly ORR, based on what they wished to achieve from treatment, such as the disappearance of cancer, rather than viewing them as methods to evaluate treatment efficacy

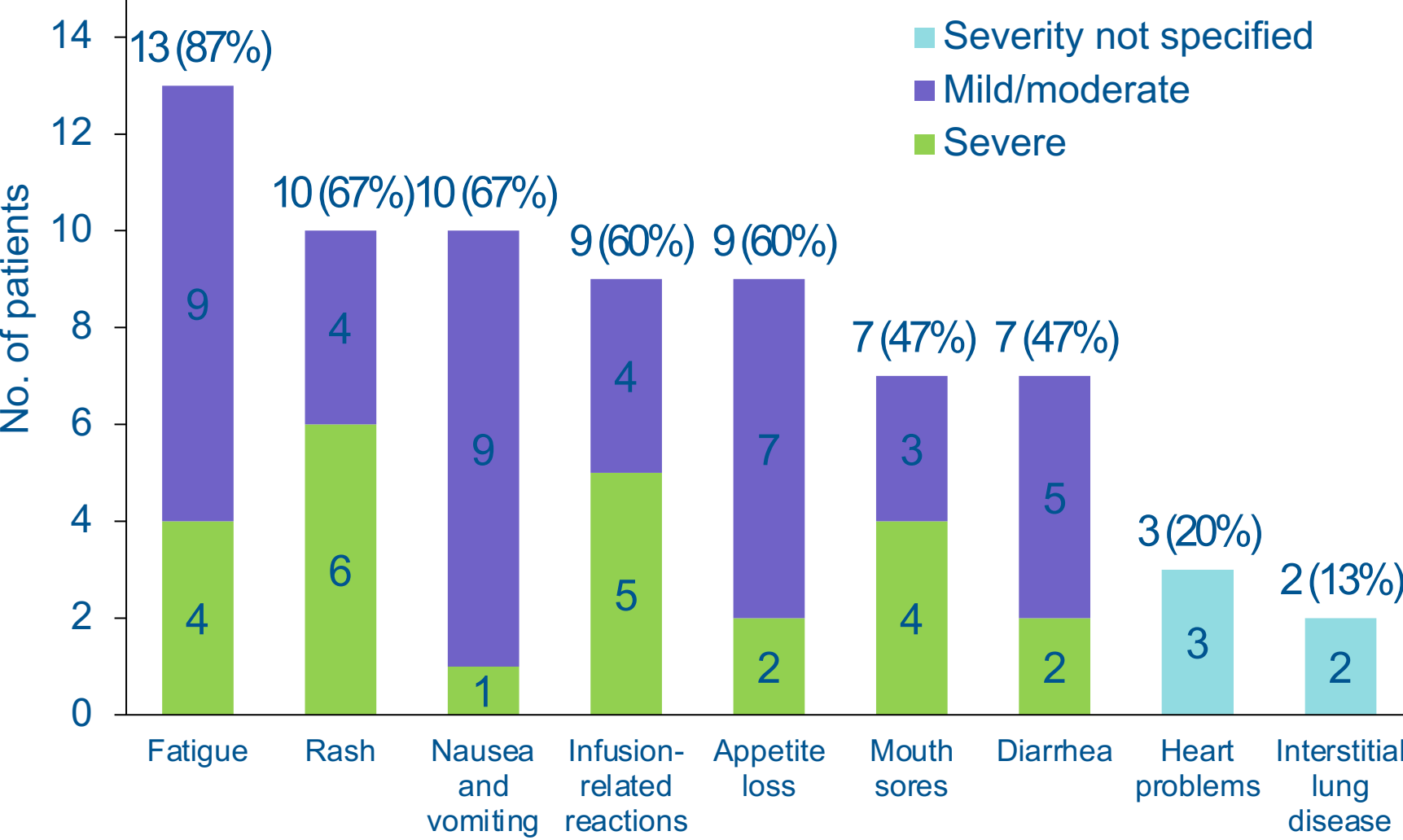
### References

- Amivantamab FDA label data: [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2021/761210s000lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/761210s000lbl.pdf)
- Mobocertinib FDA label data: [https://www.accessdata.fda.gov/drugsatfda\\_docs/label/2021/215310s000lbl.pdf](https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/215310s000lbl.pdf)

### Acknowledgements

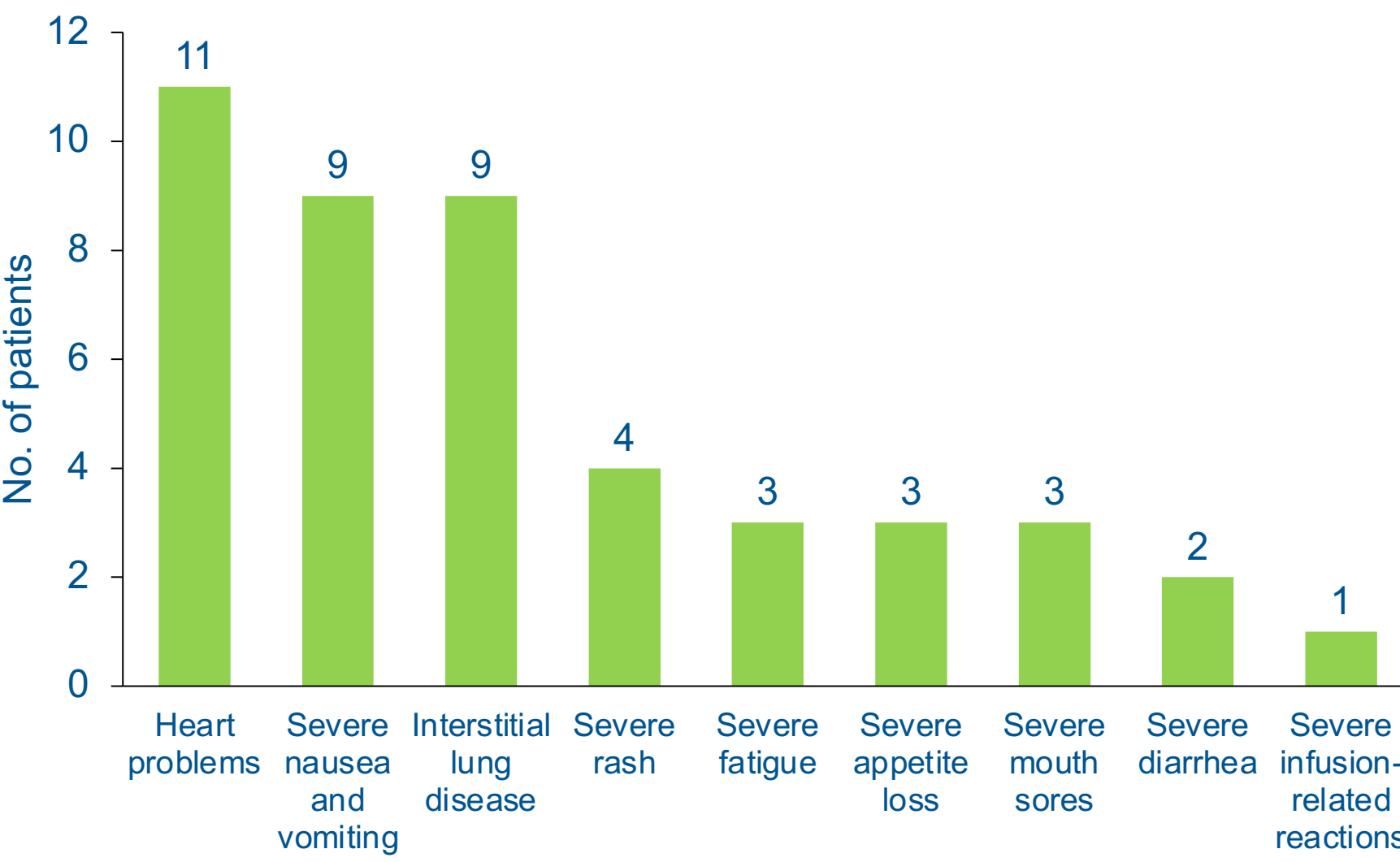
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**Figure 2. AEs experienced by participants**



AE, adverse event.

**Figure 3. The three AEs participants considered most important to avoid**



AE, adverse event.

## Discussion

- Patients with NSCLC with *EGFR**Rex20ins* emphasized overall survival (OS), response to treatment, and disease control as important treatment benefits
- Patients were less concerned about the risk of mild/moderate AEs or AEs that could be managed with medication than about severe AEs and difficult to manage AEs
- Future studies with an expanded population should explore whether participants with NSCLC may be willing to trade AEs for treatment efficacy

### Study sponsorship

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### Disclosures

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