

# Exploring the Potential of Immunotherapy in Earlier Stages of Cancer

## Recurrence Rates in Earlier Stages of Cancer

In earlier stages of many cancer types, patients face a high risk of recurrence after surgery:



Up to **85%** Melanoma (stage IIIB & IIIC)<sup>1</sup>



Up to **70%** Hepatocellular Cancer<sup>2</sup>



**30%-55%** Lung Cancer (non-small cell)<sup>3,4,5</sup>



Up to **50%** Bladder Cancer (muscle invasive)<sup>6</sup>



**38%** Esophageal Cancer<sup>7</sup>

Earlier treatment can be critical for changing a patient's trajectory, as relapse often marks the transition between curable and incurable disease.<sup>8</sup>

## Why Research Immunotherapy for Earlier-Stage Disease

In earlier stages of cancer, the immune system may be:<sup>9</sup>



more responsive



more intact

Types of treatments used in earlier settings include:<sup>10</sup>



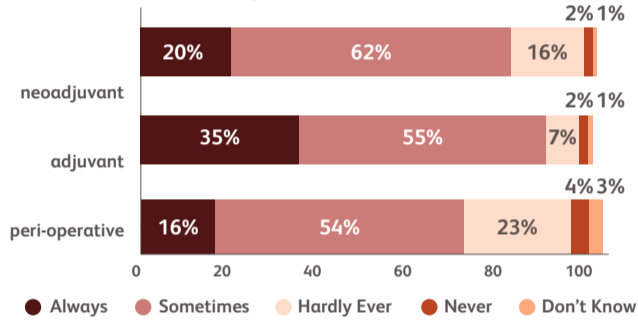
- neoadjuvant (before surgery)
- adjuvant (after surgery)
- peri-operative (both before and after surgery)

## How Healthcare Professionals (HCPs) View Earlier-Stage Cancer Treatment, According to a New Survey<sup>11</sup>

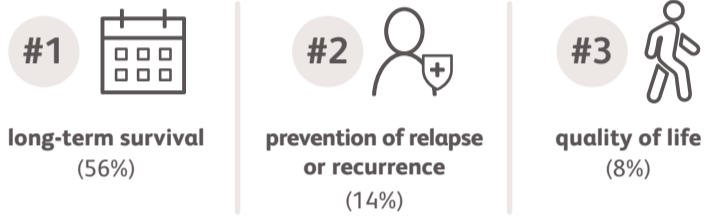
On behalf of Bristol Myers Squibb, Ipsos MORI carried out an online survey\* of **256 oncologists, surgeons and specialists** about current treatment practices and perceptions in earlier stages of cancer (i.e. stages I-III).

### The Current State of Neoadjuvant, Adjuvant and Peri-Operative Therapies

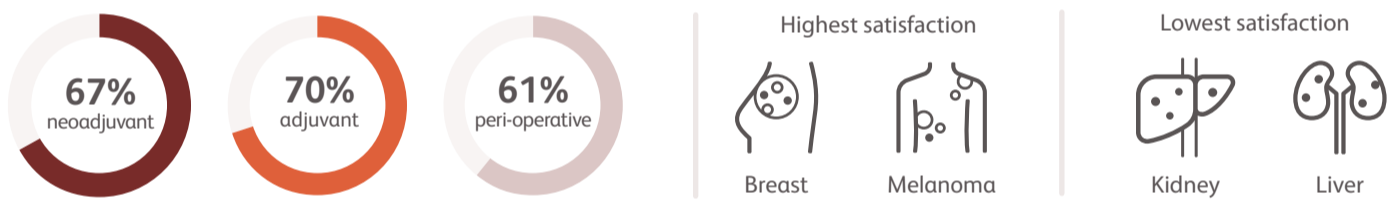
A majority of HCPs surveyed report **"sometimes"** using treatments in earlier stages of cancer:



HCPs surveyed rank most **important factors** when making treatment decisions in patients with operable tumors as (top mentions):

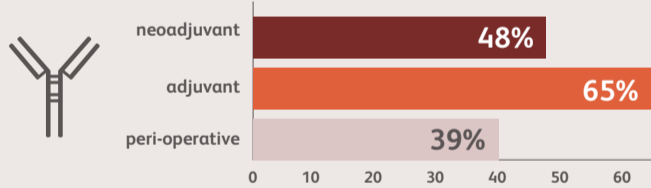


Overall reported **satisfaction with current treatments is high**, but varies by tumor type according to HCPs surveyed who treat patients with these cancers



### Looking Ahead: How Immunotherapy May Transform Earlier Stages of Cancer

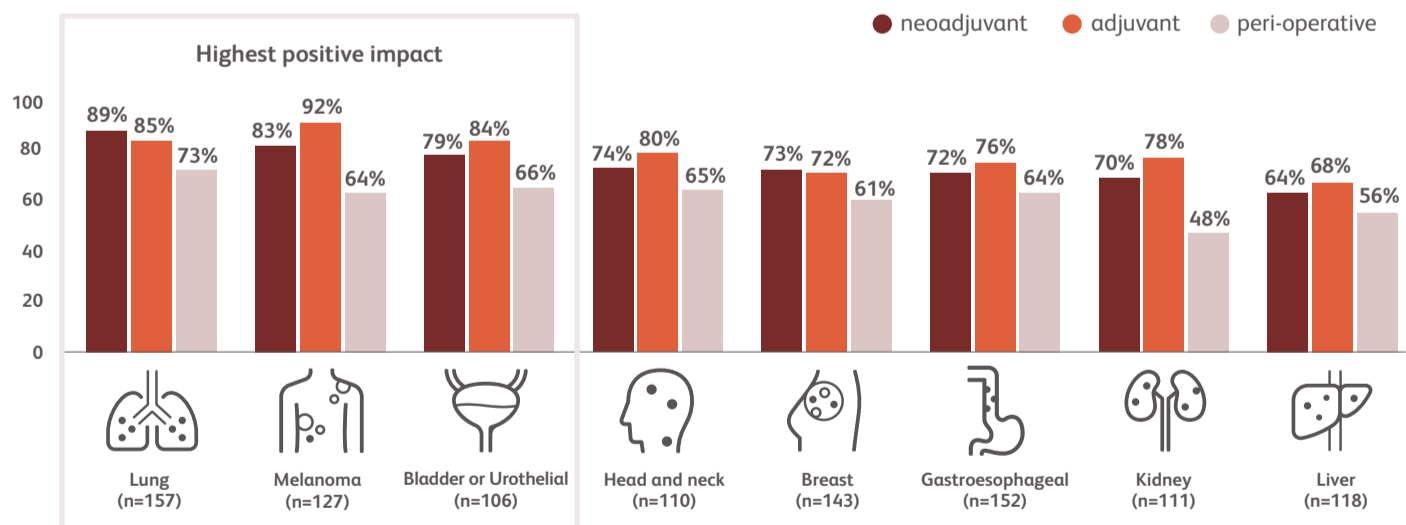
Currently, participants report **some use of immunotherapy in earlier stages** (either as approved therapies or in clinical trials).



The majority of HCPs surveyed are either **"very"** or **"fairly"** enthusiastic about the potential of immunotherapy in earlier settings, if approved by regulatory authorities.



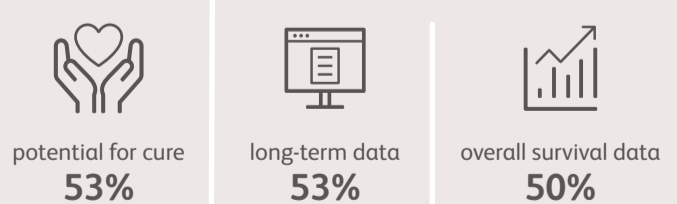
Many participants anticipate immunotherapy, if approved, will have a positive impact on the earlier-stage cancer treatment landscape.



Selecting from a list, HCPs surveyed classify the **most important potential benefits of immunotherapy** as (top mentions):



And the leading barriers to adoption as the need for (top mentions):



Bristol Myers Squibb is researching the potential of immunotherapy in earlier stages of cancer across multiple tumor types, including in the neoadjuvant, adjuvant and peri-operative settings.

\*On behalf of Bristol Myers Squibb, Ipsos MORI carried out an online survey on treatment perceptions and practices in earlier stages of cancer. A total of 256 healthcare providers across five countries (France n=50, Germany n=50, Italy n=50, U.S. n=56 and Japan n=50) chose to take part in the online survey. Fieldwork took place between June 3 and July 2, 2021. Respondents included medical oncologists, surgeons (specifically, general, thoracic, breast, respiratory and gastroenterological surgeons) and specialists (specifically, urologists, dermatologists, pulmonologists, gastroenterologists, otolaryngologists) who treat patients across one to eight different cancer types specifically, bladder/urothelial cancer, breast cancer, gastroesophageal cancers, head and neck cancer, kidney cancer, liver cancer, lung cancer, melanoma, across stages I to III. A quota was set to obtain a minimum of 25 medical oncologists in France (n=28), Germany (n=29), Italy (n=29) and U.S. (n=25). The sample included a mix of hospital-, university- and community-based HCPs. The respondents were sampled from pre-existing panels of self-selecting HCPs, managed by M3 and SHC.

1. Romano E et al. J Clin Oncol. 2018;36(18):3042-3047. 2. Vogel A et al. Ann Oncol. 2018;29(suppl 4):iv238-iv255. 3. al-Kattan K et al. Eur J Cardiothorac Surg. 1997;12(3):380-4. 4. Hoffman P C et al. Lancet. 2000 Feb 5;355(9202):479-85. 5. Carnio S et al. Transl Lung Cancer Res. 2013 Oct; 2(5): 372-381. 6. Boegemann M, Krabbe L-M. Mini Rev Med Chem. 2020;20:1133-1152. 7. Lou F et al. J Thorac Oncol. 2013;8(12):1558-1562. 8. Mahvi D et al. CA Cancer J Clin. 2018 Nov; 68(6): 488-505. 9. Pandya PH et al. J Immunol Res. 2016:4273943. 10. Earlier stages of cancer. NCI Dictionary of Cancer Terms. Accessed August 6, 2021: <https://www.cancer.gov/publications/dictionaries/cancer-terms/> 11. Earlier stages of cancer survey. Commissioned by Bristol Myers Squibb, carried out by Ipsos MORI. July 2021. Data on file.