

MEDICAL BREAKTHROUGHS **RESEARCH SUMMARY**

TOPIC: HUNTING HEAD AND NECK CANCER CELLS
REPORT: MB #4257

BACKGROUND: Cancers that are known collectively as head and neck cancers usually begin in the squamous cells that line the moist, mucosal surfaces inside the head and neck (for example, inside the mouth, the nose, and the throat). These squamous cell cancers are often referred to as squamous cell carcinomas of the head and neck. Head and neck cancers can also begin in the salivary glands, but salivary gland cancers are relatively uncommon. The symptoms of head and neck cancers may include a lump or a sore that does not heal, a sore throat that does not go away, difficulty in swallowing, and a change or hoarseness in the voice. Head and neck cancers account for approximately 4% of all cancers in the United States. These cancers are more than twice as common among men as they are among women. Head and neck cancers are also diagnosed more often among people over age 50 than they are among younger people.

(Source: <https://www.cancer.gov/types/head-and-neck/head-neck-fact-sheet>)

NIVOLUMAB: The treatment plan for an individual patient depends on a number of factors, including the exact location of the tumor, the stage of the cancer, and the person's age and general health. Treatment for head and neck cancer can include surgery, radiation therapy, chemotherapy, targeted therapy, or a combination of treatments. There are also immunotherapy treatments available: the two checkpoint inhibitors nivolumab and pembrolizumab. Nivolumab is approved to be used alone or with other drugs to treat melanoma, non-small cell lung cancer, renal cell carcinoma (a type of kidney cancer), urothelial carcinoma (a type of bladder cancer), and of course squamous cell carcinoma of the head and neck that has metastasized or recurred in patients whose disease got worse during or after treatment with platinum chemotherapy.

(Source: <https://www.cancer.gov/about-cancer/treatment/drugs/nivolumab>)

PEMBROLIZUMAB: Pembrolizumab is the generic name for the trade drug name Keytruda, and is a monoclonal antibody. Monoclonal antibodies are a relatively new type of "targeted" cancer therapy. To make anti-cancer monoclonal antibodies in the laboratory, scientists analyze specific antigens on the surface of cancer cells. Then they create a specific antibody that will attach to the target antigen on the cancer cells. Since monoclonal antibodies target only specific cells, they may cause less toxicity to healthy cells. Monoclonal antibody therapy is usually only given for cancers in which antigens have been identified already. Pembrolizumab is given as an intravenous injection through a vein over 30 minutes every 3 weeks. Both drugs are FDA approved, but the trial that carries the higher burden of proof for the use of these drugs in head and neck cancer is the Checkmate 141 trial with nivolumab.

(Source: <http://chemocare.com/chemotherapy/drug-info/Pembrolizumab.aspx>)

FOR MORE INFORMATION ON THIS REPORT, PLEASE CONTACT:

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com