



PETER BAKER

Q+A

## meet the physician

# Barbara Ann Burtness, MD

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Cancers Program  
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### Your clinical focus is on the care of patients with head and neck cancers. What new therapies and trials do you have to offer your patients?

Many of our patients who are treated with chemotherapy and radiation have complete resolution of their tumor. In unusual cases where the cancer persists at the end of radiation, surgery is often considered. We have a new trial available to give these patients immunotherapy before their surgery, in the hopes that setting off a good immune response to the cancer will reduce the chances of a later recurrence, as well as shrink the existing tumor before surgery.

My research has focused on a growth factor receptor called EGFR, which has been linked to head and neck cancer. Our findings show when an EGFR moves to the nucleus of the cell, the outcome from treating the cancer is worse. As a result, a new trial is studying the combination of the standard EGFR therapy, cetuximab, which cannot affect EGFR in the nucleus of the cancer cell, with afatinib, which reduces the amount of EGFR that can travel to the nucleus as well as inhibits EGFR when it is in the nucleus.

In addition, for patients with disease that has spread outside the area of the head and neck, or that has recurred after initial treatment, we have a number of trials that use combinations of immunotherapy with vaccines, chemotherapies, or other immunotherapies to improve the results we can achieve with immunotherapy.

### The options for treatment of head and neck cancers are exploding, as new therapies are available through clinical trials. How are your patients matched with the best options available for them?

We look at whether or not the tumor is caused by human papillomavirus (HPV), and we can do this either by directly measuring HPV virus in the cells, or by a very sensitive test called p16. We also determine suitability for immunotherapy by staining the tumor for a protein called PD-L1. For rare types of head and neck cancers, and in the setting of recurrent cancer, we determine the gene sequence for a large number of cancer genes, and this can help establish whether a patient is eligible for trials with certain new therapies.

### How do you align your clinical care with our research efforts at Yale Cancer Center?

Our head and neck team members meet every week to discuss new patients and patients who have new findings on their scans. We always seek to find the best treatment for each patient, while also looking for the treatment that will minimize side effects and loss of function. In many cases, clinical trials offer new approaches that can best balance those two goals. Many of the head and neck physicians at Yale are also cancer researchers who study how to prevent or treat head and neck cancers in their laboratories, who lead clinical trials, or who use information from national databases to compare the effectiveness of different treatment approaches. All of us share a common goal of curing head and neck cancer with treatments which do not interfere with function and quality of life.