

## Unknown Primary - Latest Research [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 03/2014

**ON THIS PAGE:** You will read about the scientific research being done now to learn more about this type of cancer and how to treat it. To see other pages, use the menu on the side of your screen.

Doctors are working to learn more about CUP, ways to prevent cancer, how to best treat CUP, and how to provide the best care to people diagnosed with this disease. The following areas of research may include new options for patients through [clinical trials](#) [3]. Always talk with your doctor about the diagnostic and treatment options best for you.

**Using tumor genetics to diagnose the primary site.** Different tissues within the body make different proteins, depending on which genes are active. This is called gene expression. For example, some of the genes expressed by healthy lung cells are different from those expressed by healthy colon cells. When cancers develop in these organs, they usually have the same organ-specific pattern of gene expression. It is now possible to analyze a tumor sample from a biopsy to find the genes being expressed, which usually predicts the place where the cancer began.

As mentioned in the [Treatment Options](#) [4] section, site-specific treatment based on molecular tumor profiling prediction is replacing empiric chemotherapy as the standard treatment for patients with CUP who do not fit into any of the specific subgroups described. Ongoing clinical trials are further examining the outcome of assay-directed treatment in order to better define its role in treating CUP.

**Targeted therapy.** As outlined in the [Treatment Options](#) [4] section, targeted therapy is directed at specific molecular abnormalities within the cancer cell or the surrounding tissue environment that contributes to cancer growth and spread. These abnormalities include gene mutations in the cancer and abnormal activity of various signaling proteins within the cancer cell. Learn more about [targeted treatments](#) [5].

Several targeted therapies are approved by the FDA for specific cancers, either used alone or with chemotherapy. However, no targeted therapies are currently approved to treat CUP, and the targeted agents approved for other cancers have not been tested in CUP. Since CUP actually covers many tumor types, such as tumors that begin in the lung, breast, colon, etc., it is likely that some patients would benefit from the targeted therapies already proven to treat specific tumor

types. For example, therapies targeting HER2, which is a molecular abnormality found in about one-fifth of breast cancers, have dramatically improved treatment results for these patients. Could a patient with CUP who is predicted to have breast cancer according to molecular profiling have an abnormality in HER2? If so, would treatment with a therapy targeting HER2 benefit this patient? The answer to both questions is likely to be ?yes,? but no clinical trials have addressed this issue for HER2 or any other molecular abnormality. Current and future clinical trials will address these important questions.

**New types of treatment.** Patients with CUP that no longer responds to standard treatment may want to consider clinical trials that test new types of treatment, called phase I clinical trials [6]. The goals of these studies are to find the side effects and best doses for these new drugs, as well as to learn if they are effective against cancer.

**Supportive care.** Clinical trials are underway to find better ways of reducing symptoms and side effects of current cancer treatments in order to improve patients? comfort and quality of life.

To find clinical trials specific to your diagnosis, talk with your doctor or search online clinical trial databases now [7].

*The next section addresses how to cope with the symptoms of the disease or the side effects of its treatment. Use the menu on the side of your screen to select Coping with Side Effects, or you can select another section, to continue reading this guide.*

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**Links:**

- [1] <http://www.cancer.net/cancer-types/unknown-primary/latest-research>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/19693>
- [4] <http://www.cancer.net/node/19692>
- [5] <http://www.cancer.net/node/24729>
- [6] <http://www.cancer.net/node/24880>
- [7] <http://www.cancer.net/node/24878>