MEDICAL BREAKTHROUGHS
RESEARCH SUMMARY

TOPIC: TAGRISSO: BREAKTHROUGH TREATMENT FOR LUNG CANCER
REPORT: **MB #4815**

LUNG CANCER: Lung cancer is a type of cancer that begins in the lungs, which are two spongy organs in your chest that take in oxygen when you inhale and release carbon dioxide when you exhale. Lung cancer is the leading cause of cancer deaths worldwide. Smokers have the greatest risk of lung cancer, though lung cancer can also occur in people who have never smoked. Signs and symptoms of lung cancer generally occur when the disease is advanced and may include a new cough that does not go away, coughing up blood, shortness of breath, chest pain, hoarseness, losing weight without trying, bone pain and headache. The two major types of lung cancer are based on the appearance of cells under the microscope and they include small cell lung cancer which occurs almost exclusively in heavy smokers and non-small cell lung cancer which are several types of lung cancers including squamous cell carcinoma, adenocarcinoma and large cell carcinoma.
(Source: https://www.mayoclinic.org/diseases-conditions/lung-cancer/symptoms-causes/syc-20374620)

TRADITIONAL TREATMENTS: Lung cancer is treated several ways, depending on the type of lung cancer and how much it has spread. People with non-small cell lung cancer can be treated with surgery, chemotherapy, radiation therapy, targeted therapy, or a combination of these treatments. People with small cell lung cancer are typically treated with radiation therapy and chemotherapy. With targeted therapy doctors use drugs to block the growth and spread of the cancer cells. They can be pills or medicine given in your veins. Targeted drug treatments focus on specific abnormalities present within cancer cells. By blocking these abnormalities, targeted drug treatments can cause cancer cells to die. Many targeted therapy drugs are used to treat lung cancer, though most are reserved for people with advanced or recurrent cancer. Some targeted therapies only work in people whose cancer cells have certain genetic mutations.
(Sources: https://www.cdc.gov/cancer/lung/basic_info/diagnosis_treatment.htm, https://www.mayoclinic.org/diseases-conditions/lung-cancer/diagnosis-treatment/drc-20374627)

NEW TARGETED THERAPY TREATMENT ON THE HORIZON: ADAURA is a phase 3 randomized trial comparing adjuvant osimertinib with placebo in patients with surgically resected non-small cell lung cancer that harbors an activating *EGFR* mutation. ADAURA is the first global trial for an EGFR inhibitor to show a statistically significant and clinically meaningful benefit in adjuvant treatment of lung cancer. In the trial, patients were treated with *Tagrisso* 80mg once-daily oral tablets for three years or until the disease recurred. Said Timothy Burns, MD., Medical Oncologist at the University of Pittsburgh Medical Center “When this gets approved, it will really make molecular testing essential for all lung cancer patients’ stage and that will have implications not only for EGFR mutant patients, but we're also going to identify other drivers and there are already trials underway looking at ALK, which is the most frequent, and we may look back and say, well, this drug not only got approved for five to 20% of patients, but also kind of shifted the way we think about early stage disease and whether we can we target it.” The trial is enrolled in more than 200 centers in more than 20 countries, including the U.S., Europe, South America, Asia, and the Middle East. It has not been FDA approved, but likely will be soon and it is probably the most practice-changing thing that has come out this year.
(Sources: https://www.astrazeneca.com/media-centre/press-releases/2020/tagrisso-phase-iii-adaura-trial-will-be-unblinded-early-after-overwhelming-efficacy-in-the-adjuvant-treatment-of-patients-with-egfr-mutated-lung-cancer.html, https://www.curetoday.com/view/mixed-bag-only-a-

fraction-of-recent-drug-approvals-in-nsclc-space-considered-practice-changing, https://www.curetoday.com/view/expert-highlights-exciting-future-developments-in-lung-cancer-treatment)

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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