Lay Abstract:

Head and neck cancer (HNC) is a common disease that often is diagnosed after having spread to lymph nodes in the neck. These cancers are usually curable, but treatment often requires an intensive combination of chemotherapy, radiation therapy (RT) and surgery. Previous studies have found that more intensive treatment can improve survival and reduce cancer recurrence. But these intensified treatment programs come at the cost of increased short- and long-term side effects. Previous research has shown that some patients, such as the elderly, do not benefit from more aggressive treatment, because improvements in cancer control are often negated by patients’ risk of dying from other non-cancer causes. Being able to predict a patient’s relative risk of dying from cancer versus non-cancer causes can determine how much they would likely benefit from more aggressive treatment. Such methods of assessment could direct the use of more aggressive therapies to those most likely to benefit. Unfortunately, traditional methods of determining risk, such as staging systems, do not adequately take into account the relative risk of dying from cancer versus alternative causes of mortality. Our group has developed better statistical methods to improve prediction of the relative risks for HNC patients. We are
planning to use data from clinical trials and the VA hospitals to validate this theory and make the prediction model more accurate.