

**“Age as a Factor in Tolerance of Chemotherapy”**

**[This project plans to document the variations in baseline and continuing status of younger versus older cancer patients undergoing systemic chemotherapy.]**

The majority of newly diagnosed cancers in NJ occur in those 65 years of age or older (64% in men; 58% in women). Aging has long been identified as a risk factor for the development of cancer. Cancer is the leading cause of death in the 60-79 year age group and the second leading cause of death in those 80 and older. The significance of this is amplified by the predicted rapid expansion of the older age group. By 2030, 20% of the population is projected to be 65 years of age or over, nearly doubling the current 12.8%.

Some issues related to aging such as depression, dementia, nutritional status, functional status (e.g., the ability to prepare meals, manage money, etc.), multiple medications, and other existing medical problems may complicate cancer treatment. A multidisciplinary assessment called Comprehensive Geriatric Assessment (CGA) has been used in geriatrics to identify and treat specific geriatric syndromes leading to decreased hospitalizations, reduced mortality, and improved physical and cognitive function. It is thought that an assessment like the CGA might be helpful in improving the treatment outcomes of elderly cancer patients in the oncology setting. Studies have shown that the CGA can be used in the oncology setting but little data are available about the relationship between these issues, chemotherapy tolerance and treatment outcomes. The CGA is also fairly time consuming for the non-geriatric physician and staff.

One component of tolerance of chemotherapy has to do with a set of symptoms that are related to quality of life. These include depression, memory loss, fatigue, weight loss and functional deficits. While these symptoms or "tolerance reactions" may be reported by chemotherapy patients of any age, they are thought to be more problematic for the elderly. However, there is little published data to document that older chemotherapy patients are more likely to experience higher rates of these symptoms than younger chemotherapy patients. The first objective of this pilot study is to investigate if such a difference exists.

The study's second objective is to identify a subset of elderly chemotherapy patients with geriatric syndromes by using a comprehensive geriatric screening tool (CGS) which incorporates the essential elements of the CGA but is more "useable" in the oncology setting. These syndromes may include dementia, nutritional deficits, and functional deficits. We will ascertain whether the presence of these syndromes and other medical problems will result in decreased quality of life and fatigue for these older patients as measured by a standard chemotherapy assessment called the FACT-F (Functional Assessment Chemotherapy Treatment-Fatigue).

The third objective of this study is to attempt to document whether the presence of geriatric syndromes and/or other existing medical problems influence oncologists' treatment decisions.

Specifically, 52 chemotherapy patients (26 ages 18-55 and 26 age >64) will be assessed using the CGS and then treated with chemotherapy. Patients will be assessed for the presence of "tolerance reactions" at the beginning of chemotherapy, in 6-8 weeks (i.e., after 2 rounds of chemotherapy), and in 12-14 weeks (i.e., after 4 rounds). This study is observational and will describe the findings in the two groups without a specific intervention, reserving an interventional study if significant differences are seen.