SELECT Ancillary Studies

Within SELECT, there were two types of additional studies: sub-studies and ancillary studies. A sub-study was defined as an imbedded study which studied the primary endpoint of SELECT (prostate cancer) but for which the full SELECT population was not needed to answer the question of interest. An ancillary study has independent study objectives, endpoints different than prostate cancer and was funded by an independent source.

Sub-studies
For the sub-studies within SELECT, sites or groups of sites were identified in which the sub-study could be conducted. Within this set of sites, all participants were asked to participate.

The first sub-study was the "**Adherence Cohort**". In this study, there were 23 sites chosen that were representative of the wide range of study sites in the trial based on recruitment base, location and expected size. All 2,771 participants at these sites were asked to submit additional blood specimens at 6-months, 1, 2, 4, 6,8 and 10 years post-baseline. These samples would be analyzed for levels of selenium, alpha- and gamma-tocopherol and would be used to estimate study supplement adherence as well as to look at longitudinal analyses that could incorporate change in biomarkers.

The second sub-study was a **Quality of Life** study that was implemented at 173 sites. These sites were chosen based on either being a Veteran's Administration site or a CCOP (Community Clinical Oncology Program) site. The SF 36-V, which is the VA-version of the standard SF-36 questionnaire, was administered to all participants at these sites at baseline and years 1, 3, 5 and 7 post-baseline.

Ancillary studies
There were four active ancillary studies on SELECT.

1. PREDVISE: Prevention of Alzheimer's Disease with Vitamin E and Selenium
PREADVISE was coordinated by University of Kentucky and funded by National Institute of Aging (NIA). All sites were invited to participate but only 106 study sites ultimately did. The final accrual was 7,551 participants. The primary aim of the study was to study the effect of the combination of selenium and vitamin E in the reduction of the incidence of Alzheimer's disease (AD). Secondary aims included the effect of individual agents on reduction of AD, the effect of the combination and individual agents on reduction of other neurodegenerative diseases and features of normal cognitive aging. The tertiary aim was to investigate the association of APOE and other potential biological molecular markers with the risk of AD.

In this study that was highly integrated into the parent trial, registered participants were given a short memory screen (MIS). If they failed the MIS, the Long Memory and Think Screen (LMTS) was administered and subsequently analyzed by the PREADVISE staff. Follow-up of registered participants continued during Centralized Follow-Up with the PREADVISE staff administering the questionnaires via telephone.

2. SEE: SELECT Eye Endpoint Study (Prevention of cataracts and age-related macular degeneration

SEE is coordinated by Harvard and funded by National Eye Institute (NEI). This study was also available for all interested study sites; 105 sites participated. The accrual goal was for 700 participants with age-related macular degeneration (AMD), and 2,240 participants with cataracts. The primary aim of the study is test whether vitamin E alone or selenium alone reduces the risk of (a) visually significant AMD or (b) cataracts. The secondary aim is to test whether vitamin E alone or selenium alone reduces the risk of (a) advanced AMD or (b) cataract surgery.

Upon a self-reported diagnosis of AMD interested participants are asked to sign a Medical Release. The signed medical release is sent to the Coordinating Center at Harvard and SEE staff then contact the treating physician(s) for relevant records.

3. RAS: Respiratory Ancillary Study (Prevention of pulmonary function decrease)

RAS is coordinated by Cornell and funded by the National Heart Lung and Blood Institute. This study was opened to a limited number of study sites pre-chosen based on the number of current smokers so as to increase the chance of having a population with more smokers. Final accrual was 2921 men 15% of which were smokers. The primary aim was to measure the decrease and absolute levels of lung function at 3 years for men on selenium vs. placebo. Secondary aims included measuring the decrease and absolute levels of lung function at 3 years for men on Vitamin E or combination vs. placebo and the effect of the study supplements on smokers vs. non-smokers.

Participants registered to the trial had a number of pulmonary function tests.

4. ACP: Adenomatous Colorectal Polyps (Prevention of colorectal adenomas)

ACP is coordinated by University of Arizona and funded by the National Cancer Institute (NCI). This study was opened to a limited number of study sites based on their total accrual to SELECT. The accrual goal is for 8,000. As of May 31, 2010, 4,526 participants from 76 study sites were registered. The primary aim of the study is to assess the effect of selenomethionine on (a) colorectal adenoma occurrence (b) number, size, location, histologic type and degree of dysplasia in SELECT men with CRA and (c) colorectal cancer incidence. Secondary aims include assessing the effect of Vitamin E on colorectal adenoma recurrence and colorectal cancer incidence.

Upon a participant report of colonoscopy/sigmoidoscopy or polypectomy the participant is asked to sign a Medical Release. Staff at the University of Arizona then requests the records and tissue and collect the data for their analysis.