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Project Title Outcome after Stroke among Long-Term Survivors of Childhood Leukemia and Brain Tumors

Planned research population (eligibility criteria) All CCSS cohort survivors of childhood leukemia or brain tumor would be included in an analysis of how self-reported stroke impacts quality of life and mortality outcomes using existing CCSS data. The subset of children with self-reported first strokes (n=97 among leukemia survivors; n=117 among brain-tumor survivors) would be surveyed regarding recurrent strokes (Bowers, et al; J Clinical Oncology, 2006).

Proposed specific aims 1) To determine whether childhood cancer survivors with stroke have worse quality of life and higher mortality rates than those without stroke. 2) To determine rates of recurrent stroke among childhood cancer survivors reporting first stroke. 3) To determine predictors of stroke recurrence, such as cancer type (leukemia versus brain tumor), timing of first stroke (less than or greater than 5 years from cancer diagnosis), treatment with cranial radiotherapy (CRT), and age at CRT.

Will the project require non-CCSS funding to complete? No

If yes, what would be the anticipated source(s) and timeline(s) for securing funding?

Does this project require contact of CCSS study subjects for . . .

Additional self-reported information Yes

Biological Samples No

Medical record data No

If yes to any of the above, please briefly describe. Subjects with self-reported first strokes (n=97 among leukemia survivors; n=117 among brain-tumor survivors) would be asked for additional self-reported information about the first stroke and recurrent strokes. Questions would relate to timing of stroke, stroke type (hemorrhagic or ischemic), treatment, and residual deficits.

What CCSS Working Group(s) would likely be involved? (Check all that apply)

Second Malignancy

Primary - No

Secondary - No

Chronic Disease

Primary - No

Secondary - Yes

Reproductive

Primary - No

Secondary - No

Neurologic

Primary - No

Secondary - Yes

Psychology / Neuropsychology

Primary - Yes

Secondary - No

Genetics

Primary - No

Secondary - No

Cancer Control

Primary - No

Secondary - No

Epidemiology / Biostatistics

Primary - No

Secondary - No

To describe the anticipated scope of the study, please indicate the specific CCSS data to be included as outcome (primary or secondary) or correlative factors. (Check all that apply)

Late mortality

Primary - Yes

Secondary - No

Correlative Factors - No

Second Malignancy

Primary - No

Secondary - No

Correlative Factors - No

Health Behaviors

Tobacco

Primary - No

Secondary - No

Correlative Factors - No

Alcohol

Primary - No

Secondary - No

Correlative Factors - No

Physical activity

Primary - No

Secondary - No

Correlative Factors - No

Medical screening

Primary - No

Secondary - No

Correlative Factors - No

Other

Primary - No

Secondary - No

Correlative Factors - No

If other, please specify

Psychosocial

Insurance

Primary - No

Secondary - No

Correlative Factors - No

Marriage

Primary - No

Secondary - Yes

Correlative Factors - No

Education

Primary - No

Secondary - Yes

Correlative Factors - No

Employment

Primary - No

Secondary - Yes

Correlative Factors - No

Other

Primary - No

Secondary - No

Correlative Factors - No

If other, please specify

Medical conditions

Hearing/Vision/Speech

Primary - No Secondary - No Correlative Factors - No

Hormonal systems

Primary - No Secondary - No Correlative Factors - No

Heart and vascular

Primary - No Secondary - No Correlative Factors - No

Respiratory

Primary - No Secondary - No Correlative Factors - No

Digestive

Primary - No Secondary - No Correlative Factors - No

Surgical procedures

Primary - No Secondary - No Correlative Factors - No

Brain and nervous system

Primary - Yes Secondary - No Correlative Factors - No

Other

Primary - No Secondary - No Correlative Factors - No

If other, please specify

Medications

Describe medications anti-platelets, steroids

Pregnancy and offspring

Primary - No Secondary - No Correlative Factors - No

Family History

Primary - No Secondary - No Correlative Factors - No

Psychologic/Quality of Life

BSI-18

Primary - No Secondary - Yes Correlative Factors - No

SF-36

Primary - No Secondary - Yes Correlative Factors - No

CCSS-NCQ

Primary - No Secondary - Yes Correlative Factors - No

PTS

Primary - No Secondary - Yes Correlative Factors - No

PTG

Primary - No Secondary - Yes Correlative Factors - No

Other

Primary - No Secondary - No Correlative Factors - No

If other, please specify

Chronic conditions (CTCAE v3)

Primary - No Secondary - No Correlative Factors - No

Health status

Primary - No Secondary - No Correlative Factors - No

Demographic

Age

Primary - No Secondary - No Correlative Factors - Yes

Race

Primary - No Secondary - No Correlative Factors - Yes

Sex

Primary - No Secondary - No Correlative Factors - Yes

Others

Primary - No Secondary - No Correlative Factors - No

If others, please specify

Cancer treatment

Chemotherapy

Correlative Factors - Yes

Radiation therapy

Correlative Factors - Yes

Surgery

Correlative Factors - Yes

Anticipated sources of statistical support

CCSS Statistical Center

Local institutional statistician Yes

If local, please provide the name(s) and contact information of the statistician(s) to be involved. Dr. Fullerton has a Masters in Clinical Research and is capable of performing the data analyses herself without additional statistical support. However, she also has funding to cover local (UCSF) analytical support if helpful. Specifically, she could involve, Nancy Hills, PhD. Dr. Hills is a biostatistician and epidemiologist within the UCSF Stroke Sciences Group, and provides

support for Dr. Fullerton's more complex analyses. Her email address is: nancy.hills@ucsfmedctr.org. Her phone number is 415-502-2540.

Will this project utilize CCSS biologic samples? No

If yes, which of the following?

Buccal cell DNA

Peripheral blood

Lymphoblastoid cell lines

Second malignancy pathology samples

Other requiring collection of samples

If other, please explain

Other general comments Collaborators on this project include CCSS investigators, Dr. Daniel Bowers and Dr. Rob Goldsby. The long-term goal is to use these data as preliminary data to obtain funding for a prospective cohort study of recurrent stroke in children with radiation-induced arteriopathy.