

## **Advancing Survivors' Knowledge (ASK) About Skin Cancer Study: A Randomized Intervention within the Childhood Cancer Survivor Study (CCSS)**

### **Background**

Adult survivors of childhood cancer who received radiation therapy have more than double the risk of developing melanoma compared to the general population and a nearly 36-fold greater risk in developing basal cell carcinoma for people younger than 35 (cite) and a 28-fold greater risk for those 35-44 (2 ask print). Both the National Cancer Institute and Children's Oncology Group recommend regular, thorough skin self-checks and annual clinical skin exams (cite) for survivors. The Advancing Survivors' Knowledge (ASK) About Skin Cancer Study was designed to educate both survivors and their physicians about the increased skin cancer risk and activate survivors and their physicians to regularly engage in early detection practices.

### **Methods**

Potential participants (previously treated with radiation; no history of skin cancer; having seen physician in the past 2 years or planning to in the next year and access to a smartphone or tablet to receive text messages/compatible with the dermatoscope) will be identified through brief screening questions on the CCSS LTFU-5 survey and recruited from the CCSS cohort via a recruitment invitation and follow-up by the CCSS Research Team. Eligible participants will be enrolled and randomized by the Harvard Chan School Research Team, who also will manage all elements of the intervention activities. The planned 801 participants will be randomized into one of three study arms: (1) patient activation and education (PAE) which includes targeted print and web-based materials plus 14 monthly text messages prompting skin checks and driving participants to the study website; (2) PAE plus physician activation (PAE + MD) adding targeted physician activation/educational materials about survivors' increased skin cancer risk and recommendations for conducting full-body skin examinations (3) PAE plus physician activation, plus teledermoscopy (PAE + MD +TD), adding participant receipt of a dermatoscope that participants can attach to their smartphones or tablets intended to empower them to photograph suspect moles or lesions for review by the study dermatologist.

### **Results**

To date, 2,366 LTFU-5 screenings have been completed resulting in 1,302 potential ASK participants. Over 80% of the initial recruitment wave of 400 invitations have been returned with 248 participants (62%) enrolled and randomized. Twenty-six percent of enrolled participants have visited the website and 12 images of suspicious moles or spots have been submitted for review from six participants with the dermatoscope.

### **Conclusions**

The current study addresses barriers to screening by providing educational and motivational information for both survivors and physicians regarding the value of regular and thorough skin examinations. It also utilizes innovative mobile health technology to activate survivors to conduct skin self-examinations, request physician examinations, and obtain treatment when worrisome lesions are found.