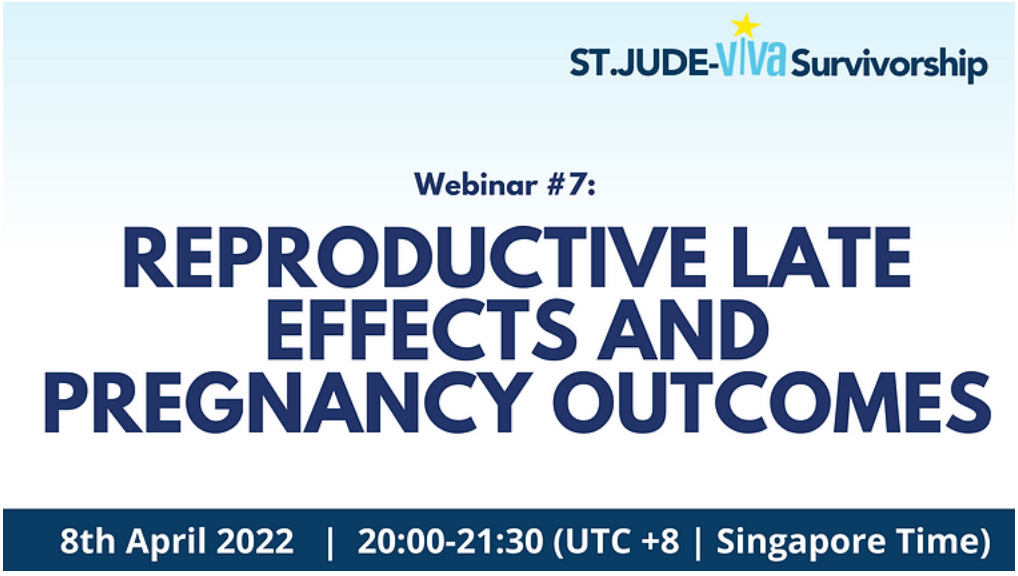


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| **Program Name:** | St. Jude-VIVA Survivorship #7 |
| **Event Date:** | Friday 8th April 2022 |
| **Event Time:** | 8:00pm – 9:30pm (Singapore Time) |

## Programme Synopsis

**Lecture 1:**
**Reproductive Late Effects in Female Cancer Survivors (Dr Jennifer Levine)**

Maintaining the capacity to have biologic children in is important to survivors of childhood, adolescent and young adult cancers. However, treatment with alkylating agents and radiation to the ovaries can cause an accelerated decrease in oocytes within the ovaries leading to impaired fertility. Radiation can also damage the uterus making it difficult to carry a pregnancy to term. In general, older patients and those whose treatment subject them to a high risk of infertility and should attempt fertility preservation prior to the start of treatment. Options include embryo, oocyte and ovarian tissue cryopreservation.

For the vast majority of patients diagnosed as children or adolescents however, there is a likely to be an opportunity to preserve fertility during the survivorship period if needed or desired. In this setting embryo and oocyte cryopreservation are the preferred methods. Surveillance during survivorship visits includes assessment of menstrual status, surrogate hormone markers for ovarian reserve and consideration of ultrasound evaluation of antral follicle count for those at risk of primary ovarian failure or those who are interested in learning more about their fertility status. It is equally important to discuss with survivors what their reproductive goals are including the timeframe in which they hope to build a family.

**Lecture 2:**
**Reproductive Late Effects in Male Cancer Survivors (Dr Daniel Green)**

More than 80% of all patients diagnosed with cancer prior to 15 years of age in the United States between 2011 and 2017 will survive for five years. The treatment these patients received may adversely affect fertility and pregnancy outcome. Testicular damage can result in sterilization or both sterilization and loss of hormone production. The relative risk (RR) of siring a pregnancy among Childhood Cancer Survivor Study (CCSS) male participants was 0.56 (95% confidence interval (CI) – 0.49, 0.63; $p<0.0001$). Those who were less than 5 years of age at diagnosis, had received > 750 cGy testicular irradiation, had a CED > 4 g/m2 were less likely to sire a pregnancy. Data from the St. Jude Lifetime Cohort Study (SJLIFE) showed that spermatogenesis is relatively unaffected when the cyclophosphamide equivalent dose (CED) is less than 4 g/m2. However more than one-half of males who receive a CED larger than this amount will have oligo- or azoospermia following treatment. Semen cryopreservation should be offered to post-pubertal males. There are no non-research fertility preservation methods currently available for pre-pubertal males. Birth defects, single gene defects and chromosomal abnormalities are not more frequent among survivors of childhood cancer than among their siblings or control populations.