

# Symposium Abstracts

## S1 | Understanding How Cancer is Different for Young Adults using the YACPRIME Study

Moderator

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Young adulthood is a period categorized by instability, self-discovery, acquiring independence, and growth, which can lead to increased vulnerability. This vulnerable status is further complicated when facing life-threatening illness, such as cancer. A young adult (YA) diagnosed with cancer still has to navigate this developmental period, but these challenges are further compounded with the mental, physical, and financial consequences associated with cancer. This session will present research from the Young Adults with Cancer in their PRIME (YACPRIME) study, a collaborative patient-oriented partnership between researchers and Young Adult Cancer Canada, the leading support and advocacy organization devoted to young adults living with, through, and beyond cancer. Among the objectives of this national survey of young adults diagnosed with cancer between the ages of 15 and 39 in Canada was to understand how cancer is different for young adults. Each presentation in this session will be co-presented by a young adult cancer survivor who can speak to the lived experience of the topic. This session will examine how YAs with cancer compare to their peers in relation to psychological wellbeing and financial status. Further, this session will explore how the quality of life of YAs with cancer fare against other Canadians overall. This research will help understand how cancer is different for young adults, and our findings will be used to develop future interventions, and advocate for supports and policy changes, to better meet the needs of YAs with cancer in Canada.

## S1-471 | Factors Related to High Psychological Distress in Young adults with Cancer Compared to Matched Peers: A YACPRIME study

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**Background/rationale or Objectives/purpose:** A diagnosis of cancer in young adulthood can disrupt an important period of development and identity formation. This study examined whether psychological distress (PD) differs in YAs with cancer compared to their non-cancer peers, and identified factors related to high PD in YAs with cancer.

**Methodology or Methods:** Canadian YAs (n=448) diagnosed between the ages of 15-39 were compared to 448 age, sex, and education matched controls randomly sampled from the 2012 Canadian Community Health Survey. The primary measure was the Kessler Psychological Distress Scale (K10). Groups were compared using chi-square tests of independence. Univariate and multivariate logistic regression was used to examine the demographic, clinical and psychological factors associated with high (moderate/severe) PD in the YA cancer group.

**Impact on practice or Results:** YAs with cancer reported significantly higher PD than their matched peers (24.89 vs. 15.75;  $p < .0005$ ). In the multivariate model, income  $> \$60,000$  was associated with a reduced

likelihood of high PD (AOR = 0.51;  $p = 0.02$ ). Other factors associated with high PD in YAs with cancer include poor sleep (AOR = 3.79;  $p = 0.005$ ), elevated fear of cancer recurrence (AOR = 6.89;  $p < 0.0005$ ), body image dissatisfaction (AOR = 2.78;  $p < 0.0005$ ), and less than high social support (average AOR = 2.74;  $p = 0.032$ ; poor AOR = 8.77;  $p < .0005$ ). Age, sex, cancer stage and type, and time since diagnosis were among variables not associated with PD.

**Discussion or Conclusions:** YAs with cancer experience significantly greater distress than their non-cancer peers. This distress is associated with modifiable factors such as sleep, fear of cancer recurrence, body image dissatisfaction, and social support, illustrating key areas for intervention

## S1-472 | An Age-Based Financial Comparison of Young Adults with Cancer and their Non-Cancer Peers: A YACPRIME Study

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**Background/rationale or Objectives/purpose:** A cancer diagnosis can impact financial well-being. Little is known about the financial impact of cancer diagnosed in young adulthood, who may be at higher risk of impact due to their developmental stage. The current YACPRIME analysis examined how age impacts financial well-being of YAs with cancer compared to their non-cancer peers.

**Methodology or Methods:** A Canadian sample of 622 individuals diagnosed with cancer between age 15 and 39 were grouped based on current age (YAs  $\leq 34$  and  $\geq 35$ ). YAs with cancer were compared to age, sex and education-matched controls randomly sampled from the 2014 Canadian Financial Capability Survey and Canadian Community Health Survey.

**Impact on practice or Results:** Income distribution for YAs with cancer in both age groups was different from their non-cancer peers ( $p < .001$ ). In those  $\leq 34$ , 64% of YAs with cancer reported a personal income  $< \$20,000$  compared to 40% of peers. Conversely, 0% made  $> \$80,000$  compared to 4% of peers. In those  $\geq 35$ , 45% of YAs with cancer made  $< \$20,000$  compared to 20% of peers and 0% made  $> \$80,000$  compared to 14% of peers. YAs with cancer were also different from peers in terms of assets ( $p < .001$ ) with 72% and 59% of YAs  $\leq 34$  and  $\geq 35$  reporting less than \$100,000 in assets compared to 43% and 33% of peers.

**Discussion or Conclusions:** Regardless of current age, both groups were financially compromised compared to non-cancer peers. Increased awareness and assistance programs are needed to help YAs recover from the financial impact of cancer.

## S1-475 | Quality of Life in Young Adult Survivors of Cancer Compared to National Norms: A YACPRIME Study

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**Background/rationale or Objectives/purpose:** Young adults (YA) diagnosed with cancer will spend the majority of their lives in survivorship, making quality of life (QOL) an important consideration. The current study examined the QOL of a national cohort of YAs diagnosed with cancer between the ages of 15-39 compared to the Canadian population.

**Methodology or Methods:** As part of the Young Adults with Cancer in their Prime (YACPRIME) survey, 436 YAs (15.5% male; median age = 34 years, range 20-64; median years from treatment completion = 2 years, range 0-47 years) completed the SF-12 as a measure of QOL. Data from YAs were compared to population data from the Canadian Community Health Survey 2010 (n = 2139, 46% male).

**Impact on practice or Results:** Univariate analyses of variance controlling for sex and age revealed a significant difference between YA survivors and the Canadian population on the physical component summary score (mean = 44.84 v. 49.71;  $F(1, 2268) = 144.61, P < .00, h^2 = 0.06$ ) and the mental health component summary score (mean = 38.67 v. 53.65;  $F(1, 2268) = 635.99, p < .00, h^2 = 0.22$ ).

**Discussion or Conclusions:** YA survivors of cancer, a median of 2 years from completion of their treatment report significantly worse quality of life compared to the Canadian population. Notably, survivors scored more than one standard deviation below the population mean with respect to their mental health. This study has important implications for the long-term follow-up on the mental well-being of YA survivors of cancer. Interventions to support these survivors are urgently needed.

## S2 | Costs of fear of cancer recurrence and its treatment

Moderator

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Fear of cancer recurrence is a highly prevalent issue in cancer patients. The available literature suggests that fear of cancer recurrence is associated with a variety of negative consequences, including greater psychological distress, lower quality of life, and greater health care costs due to increased use of health care services and psychotropic medications. In the last decade, several psychological interventions have been developed and tested to help patients overcome their fear of cancer recurrence and reduce its deleterious effects. Empirical data supporting the efficacy of these programs are burgeoning. To ensure these psychological treatments are integrated into routine cancer care, it is crucial to demonstrate not only that these interventions are effective, but also that they are cost-effective. This symposium will present the results of three clinical trials that have included health economic evaluations of psychological interventions targeting fear of cancer recurrence. First, Dr. Judith Prins will report the results of a health economic evaluation of an eHealth intervention for fear of cancer recurrence called SWORD. Second, Dr. Nadine Kasparian will present findings of a randomized controlled trial evaluating the longer-term efficacy and cost-effectiveness of a brief telephone-based psychological intervention for people at high risk of developing another melanoma. Finally, Dr. Phyllis Butow will describe results of a cost-effectiveness analysis conducted as part of a trial assessing the efficacy of the ConquerFear intervention. Implications for health policy, clinical implementation and future research will be discussed.

### S2-619 | 'I was in a dark place and now I feel alive': Efficacy and cost-effectiveness of a brief mental health intervention for people with melanoma

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**Background/rationale or Objectives/purpose:** People with melanoma want effective treatments for managing fear of cancer recurrence (FCR). This study reports the longer-term outcomes and cost-effectiveness of a brief intervention to reduce FCR in people at high-risk of developing another melanoma.

**Methodology or Methods:** Adults previously diagnosed with Stage 0-II melanoma were randomly allocated to the intervention (n = 80) or control (n = 84) group. The intervention comprised a psycho-educational resource and three telephone-based sessions with a psychologist. Intervention effect at 12-months was estimated by intention-to-treat analysis. Within-trial cost-effectiveness and cost-utility analyses were carried out using linked Medicare data.

**Impact on practice or Results:** At 12-months, intervention participants reported significantly lower FCR severity compared to controls (95%CI -2.6, -0.2;  $p = 0.02$ ). The proportion of participants with 'high' FCR (FCRI severity score  $\geq 13$ ) was 9% lower in the intervention compared to control group. Mean number of QALYs based on utilities from the AQoL-8D was 0.01 higher in the intervention compared to control group at 12-months. Mean cost of the intervention was AU\$1,614 per participant, including development costs. ICER per case of high FCR avoided was AU\$12,903 (AU\$5,031, excluding development costs). The cost-effectiveness acceptability curve demonstrated a 78% probability of the intervention being cost-effective relative to usual care at a threshold of AU\$50,000 per extra person avoiding FCR.

**Discussion or Conclusions:** Our brief intervention significantly reduced FCR immediately, 6-months and 12-months post-intervention. Economic evaluation suggests an improvement in FCR for the intervention group to be good value for money; whether this is deemed cost-effective is dependent on the 'willingness-to-pay' of the funder for a case of FCR avoided.

### S2-623 | Health economic evaluation of SWORD, an eHealth intervention for fear of cancer recurrence

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**Background/rationale or Objectives/purpose:** Blended cognitive behaviour therapy (bCBT) is an effective treatment for fear of cancer recurrence (FCR) in cancer survivors (CS) with high FCR. With increasingly constrained healthcare budgets it is important to ensure that the benefits of an intervention outweigh the costs. This study aimed to evaluate the cost-effectiveness of the SWORD intervention compared to care as usual (CAU).

**Methodology or Methods:** Data of 88 CS with high FCR randomly assigned to bCBT (n = 45) or CAU (n = 43) were available. Costs and quality-adjusted life years (QALYs) at 3, 9 and 15 months from baseline were used as the outcome measures in the cost-effectiveness analyses. To calculate QALYs, utility scores obtained by using the EuroQol questionnaire (EQ-5D-3L) were multiplied by the duration of follow-up. Intervention program costs included bottom-up calculated costs of psychologist training, supervision and consultations, in addi-