

Fertility Preservation in Pediatric Solid Tumors: A Report from the Children's Oncology Group

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Abstract

Treatment for childhood solid tumors may lead to an increased risk for gonadal dysfunction/infertility. Discussion of risk should occur at diagnosis, any changes in therapy, and during survivorship. Gonadotoxic therapies were abstracted from 32 Children's Oncology Group (COG) phase III, frontline solid tumor protocols, in use from 2000-2022. Risk for gonadal dysfunction/infertility was assessed based on gonadotoxic therapies, sex, and pubertal status and assigned as *minimal*, *significant*, and *high* following the Oncofertility Consortium Pediatric Initiative Network (PIN) risk stratification. Most protocols (65.6%, 21/32) contained at least one therapeutic arm with a *high* level of increased risk. Solid tumor therapies present challenges in risk stratification due to response-adjusted therapy and the need to account for radiation field in the risk assessment. This guide hopes to serve as a tool to assist in standardizing gonadotoxic risk assessments across disciplines and improve referral for fertility services and reproductive health counseling for patients receiving COG based solid tumor therapy.

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