

1. Coronary artery disease

General recommendation

Health care providers and childhood, adolescent and young adult cancer survivors treated with radiotherapy exposing the heart should be aware of the increased risk of coronary artery disease (moderate level evidence and expert opinion, strong recommendation).

2. Surveillance for coronary artery disease

Who need coronary artery disease surveillance and what modality should be used?

Due to insufficient evidence, currently, no recommendation can be formulated for routine primary CAD surveillance of childhood, adolescent and young adult cancer survivors treated with radiotherapy involving the heart*.

* *Insufficient evidence to determine the diagnostic value of surveillance options for asymptomatic abnormalities of the coronary arteries and whether early detection reduces morbidity and mortality (no studies/expert opinion).*

3. Modifiable cardiovascular disease risk factors

Who needs surveillance of modifiable cardiovascular disease risk factors?

Surveillance for modifiable cardiovascular disease risk factors according to national or local guidelines, which may involve referral to a cardiovascular specialist, is recommended for childhood, adolescent and young adult cancer survivors treated with radiotherapy exposing the heart (existing guidelines and expert opinion, strong recommendation).

When should surveillance for modifiable cardiovascular risk factors be initiated and at what frequency?

Timing of initiation and frequency should be based on the intensity of cardiotoxic treatment exposure(s), family history and presence of co-morbid conditions associated with cardiovascular disease risk, but at least by age 40 years and at a minimum of every 5 years (very low to high level evidence, existing guidelines and expert opinion, strong recommendation).

What can be done when modifiable cardiovascular disease risk factors have been identified?

Timely management of all modifiable cardiovascular disease risk factors (such as hypertension, dyslipidaemia, diabetes, overweight/obesity and smoking) is recommended due to the increased risk of coronary artery disease in childhood, adolescent and young adult cancer survivors treated with radiotherapy exposing the heart (existing guidelines and expert opinion, strong recommendation).

Green representing a strong recommendation with low degree of uncertainty.

Publication

van Dalen EC, Mulder RL, Suh E, Ehrhardt MJ, Aune GJ, Bardi E, Benson BJ, Bergler-Klein J, Chen MH, Frey E, Hennewig U, Lockwood L, Martinsson U, Muraca M, van der Pal HJ, Plummer C, Scheinemann K, Schindera C, Tonorezos ES, Wallace WH, Constine LS, Skinner R, Hudson MM, Kremer LCM, Levitt G, Mulrooney DA. Coronary artery disease surveillance among childhood, adolescent, and young adult cancer survivors: a systematic review and recommendations from the International Late Effects of Childhood Cancer Guideline Harmonization Group. *Eur J Cancer* 2021;156:127-137.