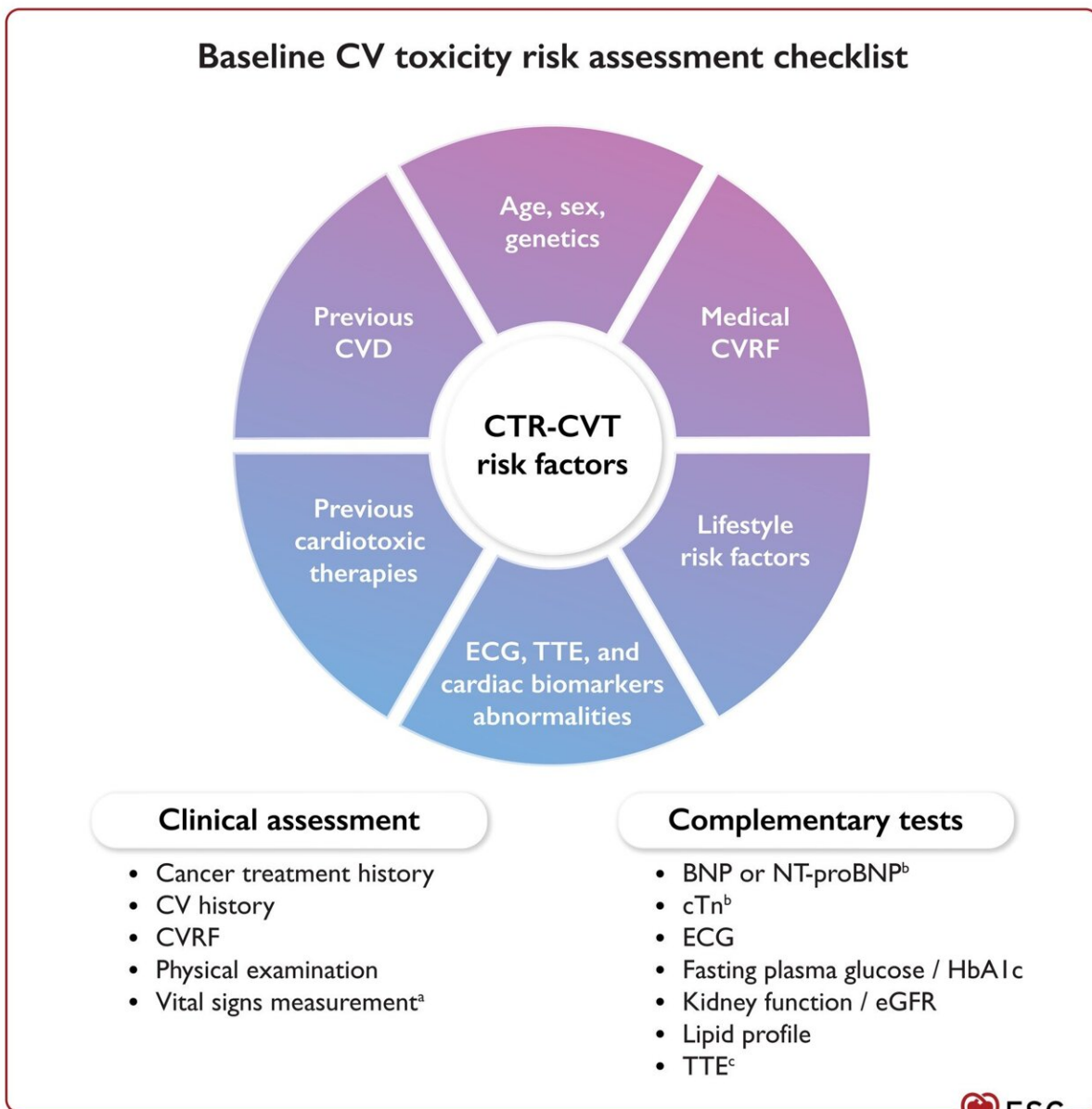


Heart disease prevention is particularly important in cancer patients

September 26 2022, by Johannes Angerer



Baseline cardiovascular toxicity risk assessment checklist. BNP, B-type natriuretic peptide; cTn, cardiac troponin; CTR-CVT, cancer therapy-related cardiovascular toxicity; CV, cardiovascular; CVD, CV disease; CVRF, cardiovascular risk factors; ECG, electrocardiogram; eGFR, estimated glomerular filtration rate; HbA1c, glycated hemoglobin; NT-proBNP, N-terminal pro-BNP; TTE, transthoracic echocardiography. Including blood pressure, heart rate, height, weight, and body mass index. Cardiac biomarkers (troponin and NP) should be measured in patients at risk of CTRCD where available and results should be interpreted according to the patient clinical status, type of cancer treatment, and kidney function. Consider other CV complementary tests in selected patients: cardiac magnetic resonance, coronary computed tomography angiography, CPET (in selected patients for pre-operative [lung, colon, and rectal cancers] risk stratification). Credit: *European Heart Journal* (2022). DOI: 10.1093/eurheartj/ehac244

Cardio-oncology is the name given to the comparatively new field of research into the connections between cardiovascular diseases and cancer, the two most common causes of death in industrialized Western countries such as Austria. As the prognosis for cancer patients improves, the phenomenon of cardiotoxicity is becoming increasingly significant. This is damage to patients' hearts caused or exacerbated by chemotherapy and/or radiotherapy.

"We now know that cardiotoxicity can lead to high blood pressure, valve disease, premature coronary artery calcification, [heart failure](#), coronary syndromes such as [myocardial infarction](#) or arrhythmia," says Jutta Bergler-Klein from the Division of Cardiology within MedUni Vienna's Department of Medicine II. In 2018, the cardiologist launched a special outpatient clinic for cardio-oncology at MedUni Vienna and committed to drawing the attention of both doctors and patients to this specialty, which is gaining prominence in the medical world due to the growing number of cancer survivors.

Cardiac protection before, during and after cancer therapy

Cardio-oncology research shows that it is not only cancer drugs that can impair cardiac function but also substances produced by tumors.

Conversely, [chronic heart failure](#) causes a chronic systemic inflammatory state, which can promote cancer development. Therefore, the prevention and management of cardiovascular disease are important at all times, especially after a [cancer diagnosis](#) and before, during, and after cancer therapy. Under no circumstances must the measures taken in any way delay or impede vital cancer treatment.

An international working group including Jutta Bergler-Klein recently drew up the first ever clear guidelines for cardiovascular primary and secondary prevention as well as treatment in [cancer patients](#) in the context of cardio-oncology guidelines. However, cancer patients themselves can also help to protect their cardiovascular system.

"Cardiac risk factors, such as [high blood pressure](#) and high cholesterol levels, should be treated promptly. Exercise and sporting activity, even during chemotherapy, if possible, can reduce potential cardiotoxicity, for example by neutralizing oxygen radicals and preventing muscle wastage," says Bergler-Klein.

Related research is published in the *European Heart Journal*.

More information: Alexander R Lyon et al, 2022 ESC Guidelines on cardio-oncology developed in collaboration with the European Hematology Association (EHA), the European Society for Therapeutic Radiology and Oncology (ESTRO) and the International Cardio-Oncology Society (IC-OS), *European Heart Journal* (2022). [DOI: 10.1093/eurheartj/ehac244](https://doi.org/10.1093/eurheartj/ehac244)

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