

In oncology, up to 25% of patient will experience cardiovascular (CV) complications (1).

These events cover a wide variety of causes (drug-induced events, cancer-related complications), clinical scenarios (thromboembolism, heart failure, arterial hypertension, ...) and management (health and diet advices, pharmaceutical changes, ...).

Patients treated for a cancer, especially breast cancer, will also have two to six times higher CV mortality rate compared to the global population. It is the second leading cause of death for these patients (2).

Moreover, this relationship between CV disease and cancer is bidirectional with higher frequency of cancer in patients diagnosed with heart failure (3).

This relationship can lead to higher mortality but also sub-optimal oncological treatment due to fear of potential CV complications.

To overcome this challenge, the new specialty cardio-oncology (CO) has been created. Mentioned first in 1996, CO has experienced significant advances in recent years. The growing number of long cancer survivors coupled with the boom in innovative cancer therapies are the main reasons why oncologists, hematologists and cardiologists have aimed to facilitate communication between their respective fields.

In regard to this challenge, we have conducted in our institute numerous meetings between oncologists, hematologists and cardiologists. The two main objectives of these meetings were to standardize regional practices in line with national and international guidelines, and to facilitate communication between specialists. To meet these goals, we first developed a CO booklet for patients.

This booklet serves as a vital link between the patient's physicians. It is divided into three parts : an administrative section, a dedicated patients section, and a medical section. These sections collectively compile the necessary medical data to monitor and prevent major CV disease in our patient throughout their entire follow-up.

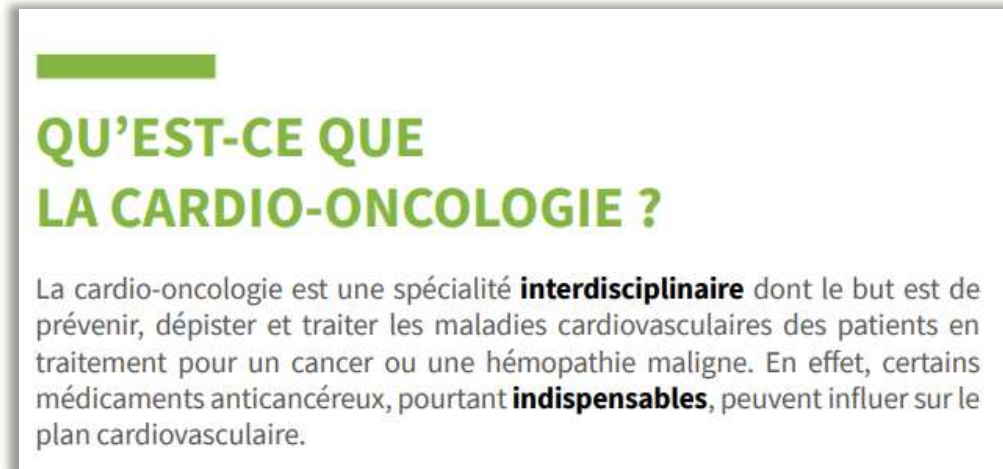
First and foremost, according to CV risk and CO evaluation, each specialist will be able to decide how to adapt the patient's follow-up and easily check previous important clinical data recorded in the booklet.

(1) : López-Fernández, T. et al (2022) : ESC Guidelines on cardio-oncology developed in collaboration with EHA, the ESTRO and the IC-OS
(2) : Patnaik J.L. et al. Breast Cancer Res. 2011 Jun 20;13(3):R64. doi: 10.1186/bcr2901. PMID: 21689398; PMCID: PMC3218953.
(3) : Essa, H., Pettitt, A.R. & Lip, G.Y.H. J Hum Hypertens 35, 301–303 (2021). https://doi.org/10.1038/s41371-020-00400-8



I] Introduction section

The first section contains administrative data about the patient (referent doctor's contacts, baseline laboratory results, ...). It also aims to explain the purpose and process of a CO follow-up, aiming to familiarize the patient with CO.



« What is Cardio-Oncology ? »



« What happens during a Cardio-Oncology consultation? »

II] Patient's section

The second part is the "Patient's section". It encourages the patient to be an active player in his/her own CV health, and includes "CO" specific nutritional advice, contact for supportive care and a list of clinical warning symptoms. Patients are encouraged to report their symptoms and signs (dyspnea, palpitations, oedema...) in-between appointments in a specifically designed table to facilitate longitudinal follow-up.



« Supportive Care Team at the Institute [ICANS] »

Semaine du 13/03 au 20/03			POIDS
SYMPTÔMES	INTENSITÉ		
Essoufflement	1 → 2 → 3 → 4	X	60 kg
Fatigue	1 → 2 → 3 → 4	X	
Gonflement des jambes	1 → 2 → 3 → 4	X	63 kg
Palpitations	X → 2 → 3 → 4		
Vertiges / Malaise	X → 2 → 3 → 4		65 kg

Charts to self-report symptoms as breathlessness, oedema, palpitation, ... and the weight during the week

III] Medical section

This part includes medical follow-up (baseline CV risk assessment, therapeutical and critical decisions, ...) with easy-to-fill charts. This section aims to facilitate communication between physicians in order to improve prevention strategies at every stage of patient follow-up.

MON SUIVI CARDIOLOGIQUE											
Suivi longitudinal cardio-oncologique - données essentielles											
Date :											
CLINIQUE			ECG		ÉCHOGRAPHIE				BIOLOGIE		
NYHA 1-4	PA mmHg	FC bpm	SINUSAL O/N	QTc ms	FEVg %	GLS %	PRVG N/E/?	PAPS mmHg	BNP	NTpro BNP	Tropo
Traitement(s) instauré(s) :											
Autre / Commentaires :											

Charts for the cardio-oncological follow-up to report main informations such as LVEF or troponin level

MON SUIVI ONCOLOGIQUE HÉMATOLOGIQUE									
Suivi longitudinal par l'oncologue /hématologue données essentielles									
DATE :									
Nom du médecin :									
Anticancéreux	Cycle	Toxicité ou symptômes cardiovasculaires							
En cours :	N°	OMS	Nos	HTA	Dyspnée	Palpitations	Syncope	Tropo	Autres (Hc, op, ...)
Commentaires / Autres :									
Action sur le traitement anticancéreux :					En cas de changement de traitement :				
Poursuite	Diminution	Pause	Arrêt	Nom :	Rythme :				

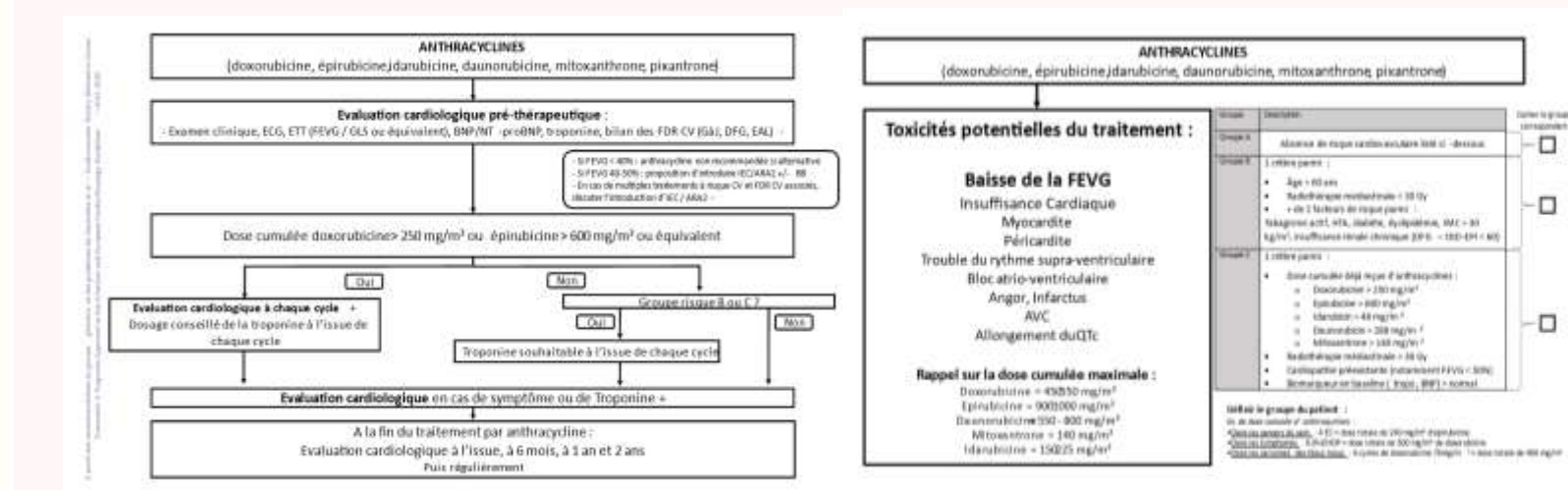
Charts for the onco/hemato-logical follow-up to report main informations such as treatment change

Deployment in our institute

The booklet is available since April 2024. We plan to distribute 6000 booklets per year for our institute.

The distribution of this booklet in our institute occurs in two waves to allow for possible adjustments based on potential feedback from physicians and patients.

Also, given the variety of oncological treatment, we decided to add printable pre-filled monitoring protocols to the booklet. These documents are available directly in our institute's medical software for each main oncological treatment categories. They include baseline laboratory test and summarize European recommendation for follow-up and main cardiac side effect. They give an essential flexibility to the booklet in order to keep the pace with the ever-evolving landscape of CO.



Printable pre-filled monitoring protocols for anthracyclines with follow-up recommendation (left) and main cardiac side-effects (right).

These documents will be regularly updated according to guidelines

Evaluation and Feedback

To our knowledge, this booklet is the first tool to be developed in order to promote CO and improve cancer patients' CV health.

The vast majority of specialists to whom we presented this booklet responded with great enthusiasm, expressing a real need for help in this domain. This feedback gives us reason to hope for wider distribution to hospitals throughout the country.

To be sure that this tool will meet this need, we plan to evaluate its use in different ways over the following years:

- Through questionnaires sent to physicians identified as users of the booklet
- Through patients' feedback, to assess their feelings towards this tool.

All of this aims to implement and develop the fundamentals of CO in Alsace and beyond, alongside innovations in oncology, hematology and cardiology.