



Supplementary material

Current Status of Cardio-Oncology in Spain: A National Multidisciplinary Survey

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National Cardio-oncology Working Group

To allow us to evaluate the current status of cardio-oncology in Spain, please, answer the following questions:

1. **Age:** _____ years old
2. **Sex:** ☐ Male ☐ Female
3. **Specialist:** ☐ Cardiologist ☐ Medical oncologist
☐ Radiation oncologist ☐ Hematologist
4. **Professional Role:** ☐ Division chief ☐ Head of section
☐ Attending physician
5. **Number of medical staff at your department:** _____
6. **Region:** _____
7. **Type of Institution:** ☐ Tertiary hospital ☐ Secondary hospital
☐ Outpatient clinic ☐ County hospital
8. **Referral hospital population:** _____
9. **Number of beds:** _____
10. **Please indicate which of the following descriptions most accurately defines your current clinical cardio-oncology service:**
 - ☐ We have a structured cardio-oncology unit (COU).
 - ☐ We have a dedicated cardiologist in charge of the care of patients with cancer-related cardiovascular complications.
 - ☐ We do not have a structured COU.
 - ☐ None at present but we plan to add these services in the near future.

11. In your opinion, what are the main barriers to the establishment of a COU in your center?

- ☐ Other departmental priorities.
- ☐ Lack of funding.
- ☐ Absence of evidence-based guidelines and specialized attending physicians.
- ☐ Others (please specify): _____

12. Do you think it is necessary to implement a structured network among different specialties involved in the care of cancer patients?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

13. Do you think it is important to develop a standardized protocol for the follow-up of CV complications?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

14. Do you consider it essential to identify and treat CV risk factors in cancer patients?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

15. In patients scheduled to receive a potentially cardiotoxic treatment, do you perform a baseline cardiac assessment?

- ☐ All patients are evaluated by a cardiologist.
- ☐ Patients are evaluated by a cancer specialist who decides whom to refer for cardiology consultation.
- ☐ Patients are only evaluated by a cancer specialist.
- ☐ Patients do not receive cardiac assessment at baseline.

16. How important should monitoring patients for CV complications during cancer treatment be considered?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

17. Are patients receiving cardiotoxic drugs monitored during treatment?

- ☐ Yes, our institution has a specific protocol for cardiotoxicity.
- ☐ Yes, but monitoring is carried out without a specific protocol.
- ☐ No monitoring is done, patients are assessed only if symptoms appear.

18. Different cardiac imaging techniques are currently available for the diagnosis of cardiotoxicity. Please indicate which techniques you use in routine clinical practice, their priority, and why.

a. Isotopic ventriculography (MUGA):

- ☐ MUGA is used in your usual clinical practice.
- ☐ MUGA is not employed in your usual clinical practice.
- i. Priority (number your priority of use from 1 to 3, with 1 being the highest):
 - 1. ☐
 - 2. ☐
 - 3. ☐
- ii. If you use them, indicate the reason:
 - ☐ Availability in your center.
 - ☐ Scientific evidence.
 - ☐ Other (please specify): _____

b. Echocardiography:

- ☐ Echocardiography is used in your usual clinical practice.
- ☐ Echocardiography is not used in your usual clinical practice.
- i. Priority (number your priority of use from 1 to 3, with 1 being the highest):
 - 1. ☐
 - 2. ☐
 - 3. ☐
- ii. If you use them, indicate the reason:
 - ☐ Availability in your center.
 - ☐ Scientific evidence.
 - ☐ Other (please specify): _____

c. Cardiac biomarkers (troponin, NT-proBNP):

- ☐ Cardiac biomarkers are used in your usual clinical practice.
- ☐ Cardiac biomarkers are not used in your usual clinical practice.

i. Priority (number your priority of use from 1 to 3, with 1 being the highest):

- 1. ☐
- 2. ☐
- 3. ☐

ii. If you use them, indicate the reason:

- ☐ Availability in your center.
- ☐ Scientific evidence.
- ☐ Other (please specify): _____

19. In relation to cancer patients who develop cardiac toxicity secondary to oncological treatments:

☐ All are jointly evaluated by oncology, hematology, radiotherapy and cardiology to plan their treatment and follow-up.

☐ Only patients referred by the cancer specialist are evaluated by a cardiologist.

☐ Patients with cardiotoxicity are assessed only by the oncologist (hematologist or radiation oncologist) who decides on their treatment and follow-up.

☐ Other.

20. How important is the impact of cancer treatment interruptions on cancer prognosis?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

21. Do you believe long-term monitoring of cancer survivors for CV complications is valuable?

Please score the perceived importance from 1 (least important) to 10 (most important).

1 2 3 4 5 6 7 8 9 10

22. Please rate how strongly you agree with the following statement (1 = strongly disagree to 10 = strongly agree): "A structured network among specialties may improve the complex care of patients with cancer and cardiovascular disease".

1 2 3 4 5 6 7 8 9 10

23. Your institution has the following units or resources (you can check several options).

- ☐ Cardiology department.
- ☐ Interventional cardiologist.
- ☐ Acute cardiovascular care unit.
- ☐ Critical care unit.
- ☐ Transplant program.
- ☐ Cardiac surgery department.

24. Please estimate how many consultations (inpatient and outpatient) in the cardiology service at your institution are related to oncology patients.

- ☐ < 100
- ☐ 100-500
- ☐ 500-1000

25. Please estimate how many requests for echocardiography studies at your institution per year are related to oncology patients.

- ☐ < 100
- ☐ 100-500
- ☐ 500-1000
- ☐ > 1000

26. With regard to the previous question, what is the percentage of oncology requests in relation to the total number of echocardiograms performed by your cardiac imaging laboratory?

- ☐ < 5%
- ☐ 5%-10%
- ☐ 10%-15%
- ☐ > 15%

27. Please indicate the total number of new cancer cases attended annually at your department?

- ☐ < 500
- ☐ 500-1000
- ☐ > 1000

28. How many requests for cardiovascular imaging studies in cancer patients are performed at your institution?

☐ < 100

☐ 100-500

☐ 500-1000

☐ > 1000

Thank you so much for your help.

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