

Worldwide survey on the use of preoperative chemotherapy in the setting of the multimodality management of intrahepatic cholangiocarcinoma

Dear IHPBA member, thank you for your participation in this anonymous survey. It should take no more than 10 minutes to answer it.

The objective of this questionnaire is to assess the surgeon perspective on the role of preoperative chemotherapy in the multimodality management of intrahepatic cholangiocarcinoma.

1. Are you a liver surgeon?

Yes

No / end of survey

2. What is your age?

18–100

3. What gender do you identify with?

Female

Male

Other

Prefer not to answer

4. In which country do you work? If you work in more than one country, please choose the country where you mainly practice in.

Countries

5. What type of medical institution are you working at? If you are working at more than one center, please select the option that best represents the center where you mainly practice at.

Academic center

Non-academic center

6. How many years have you been working as a surgeon (post-residency training/fellowships included)?

0–50 years [continuous scale]

7. How many liver resections are performed at your center annually on average?

0–1000 [continuous scale]

8. How many minimally invasive liver resections are performed at your center annually on average?

0–1000 [continuous scale]

9. How many liver resections for intrahepatic cholangiocarcinoma are performed at your center annually on average?

0–1000 [continuous scale]

10. Do you perform any minimally invasive liver surgery?

Yes

No

11. On average, how many liver resections do you personally perform as primary surgeon annually?

0–1000 [continuous scale]

12. On average, how many minimally invasive liver resections do you personally perform as primary surgeon annually?

0–1000 [continuous scale]

13. On average, how many liver resections for intrahepatic cholangiocarcinoma do you personally perform as primary surgeon?

0–1000 [continuous scale]

14. Do you consider minimally invasive surgery a suitable approach for the resection of intrahepatic cholangiocarcinoma?

Yes

No / question 14*

14*. Why do not you consider minimally invasive surgery a suitable approach for intrahepatic cholangiocarcinoma resection? All that apply.

I am not familiar with the technique

I do not think it improves long-term outcomes

I do not believe minimally invasive lymphadenectomy is safe and effective

Other (open answer)

15. Do you discuss intrahepatic cholangiocarcinoma cases in a multidisciplinary setting?

Yes

No

16. When do you discuss intrahepatic cholangiocarcinoma cases in a multidisciplinary setting?

Routinely (every case)

When diagnosis is unsure

To assess vascular involvement

To plan resection of large/complex liver mass

To assess the indication to neoadjuvant chemotherapy

Other (open answer)

17. When do you perform percutaneous biopsy?

Routinely

In selected cases (i.e.: unsure diagnosis)

Unresectable cases

Other (open answer)

18. Which of the following features do you consider as criteria of unresectability of an intrahepatic cholangiocarcinoma? All that apply.

Insufficient future liver remnant

Positive loco-regional lymph nodes

Tumor in contact with the future remaining hepatic veins

Tumor in contact with the future remaining main portal pedicles

Inability to obtain a R0 parenchymal resection

Presence of contralateral lesions

Presence of multiple unilateral nodules/satellites nodules

Other (open answer)

19. How do you consider initial CA 19-9 values in the multidisciplinary management of patients affected by intrahepatic cholangiocarcinoma?

Highly relevant

Relevant only if CA 19-9 values are more than three times higher of normal values (i.e. >150 UI/mL)

Not relevant

Other (open answer)

20. When do you use preoperative chemotherapy? All that apply.

Routinely (every case)

Initially unresectable patients

Radiological evidence of enlarged regional lymph nodes

Any increase of CA 19-9

Increase of CA 19-9 values more than three times higher of normal values (i.e. >150 UI/mL)

Other (open answer)

21. What is the most used preoperative first line chemotherapy regimen used at your center?

Gemcitabine + cisplatin

Gemcitabine + cisplatin + durvalumab

Gemcitabine + cisplatin + nab-paclitaxel

Other

22. Are you familiar with the concept of molecular profiling for intrahepatic cholangiocarcinoma?

Yes / question 22*

No

22*. Is molecular profiling of intrahepatic cholangiocarcinoma performed at your center?

Yes

No

23. Are you familiar with target therapies for intrahepatic cholangiocarcinoma?

Yes / question 23*

No

23*. Are target therapies for intrahepatic cholangiocarcinoma administered at your center?

Yes

No

24. Are you familiar with immunotherapy for intrahepatic cholangiocarcinoma?

Yes / question 24*

No

24*. Is immunotherapy for intrahepatic cholangiocarcinoma administered at your center?

Yes

No

25. When planning a liver resection for a patient affected by intrahepatic cholangiocarcinoma do you consider preoperative chemotherapy as an option?

Yes

No / question 25*

25*. Why do not you ever consider preoperative chemotherapy as an option? All that apply.

Poor/scarce evidence

Low familiarity

Previous unsatisfactory experience

Other (open answer)

26. Do you take into account the risk of delays in the administration of adjuvant treatments (i.e.: planning a complex resection with a higher risk of postoperative complications) when deciding to administer preoperative chemotherapy?

Yes

No

27. What is your aim when administering preoperative chemotherapy? All that apply.

Downsizing the tumor

Increasing the chances of obtaining a radical resection

Selecting patients with a more favorable tumor biology

Balancing the role of adjuvant chemotherapy

Other (open answer)

28. Based on your experience, what is your perception of preoperative chemotherapy before liver resection for intrahepatic cholangiocarcinoma?

Very effective

Moderately effective

Mildly effective

Not effective