<table>
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| **HCC-4**  
External request: Submission from the American Society of Radiation Oncology (ASTRO): We recommend further clarification of the eligibility criteria for surgical resection and liver transplantation, respectively.  
**Rationale:** The concern is the absence of clear guidance regarding eligibility criteria for surgical resection vs. liver transplantation.  
| Panel consensus was to not expand on eligibility criteria for surgical resection and liver transplantation.  
See Submission for references | YES | NO | ABSTAIN | ABSENT |
| 0 | 16 | 0 | 11 |
| **HCC-E, 2 of 3**  
External request: Submission from ASTRO: Recommend being specific regarding the eligibility for radiation treatments based on Child-Pugh B grade.  
**Rationale:** These patients can be safely treated if there are dose modification and strict dose adherence. Data from the literature showed that the risk of serious liver toxicity is increased after SBRT when the Child-Pugh score is >7. There is data showing that it is unsafe to deliver SBRT in 3 fractions in Child-Pugh-B patients.  
| Panel consensus was to not include specific eligibility for radiation treatments based on Child-Pugh grade.  
See Submission for references | YES | NO | ABSTAIN | ABSENT |
| 0 | 16 | 0 | 11 |
Panel consensus was to add a statement "Microsatellite instability (MSI) testing" for all unresectable and metastatic biliary cancers that have been biopsied.

Panel consensus was to revise the treatment options on GALL-5 for "Resected, positive margin (R1) or Resected gross residual disease (R2) or Positive regional nodes": “Consider Fluoropyrimidine chemoradiation followed by additional fluoropyrimidine-based or gemcitabine-based chemotherapy or Fluoropyrimidine-based or gemcitabine-based chemotherapy +/- fluoropyrimidine chemoradiation for positive regional lymph nodes or Clinical trial”


Also two references were added regarding adjuvant RT on GALL-C, Principles of Radiation Therapy:


| External request: Submission from Merck & Co. to add pembrolizumab as a systemic treatment option for adult and pediatric patients with unresectable or metastatic, microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR) solid tumors that has progressed following prior treatment and who have no satisfactory alternative treatment options or with colorectal cancer that has progressed following treatment with a fluoropyrimidine, oxaliplatin, and irinotecan. | | |
| | See Submission for references | | |
| GALL-4 | Panel consensus was to not include the recommendations of the role of PET/CT or SBRT regarding management of metastatic gallbladder cancer. However, GALL-C was reviewed with some reorganization done to ensure clarity regarding which radiation therapy techniques are recommended for treatment of unresectable biliary tract cancer. | 0 | 16 | 0 | 11 |
| External request: Submission from ASTRO: Include techniques of radiation therapy as well as the use of Hypofractionated radiation combined with chemotherapy depending on the stage of disease. There is no mention of the role of the PET/CT nor SBRT. **Rationale:** There are no clear recommendations regarding management of metastatic disease other than palliative care. Revision of the recommendations to include new technologies that could improves outcomes in this stage of disease. | | |
| | See Submission for references | | |
| GALL-5 | Panel consensus was to not revise adjuvant treatment recommendations by disease stage. | 0 | 16 | 0 | 11 |
| External request: Submission from ASTRO: Revise recommendation to adjust to the stage of the disease. **Rationale:** Pathways of post resection shows same recommendation and needs updated reference. | | | |
### GALL-5
External request: Submission from ASTRO: Be more specific in the recommendations either Surgery, RT or systemic CTX. Define dose of RT.  
**Rationale:** Revise the recommendation in patients that present with obstructive jaundice where management will be done according to the stage of the disease. Surgery or chemo radiotherapy depending on the findings at the time of work up.

| Panel consensus was to revise the treatment options on GALL-5 for “Resected, positive margin (R1) or Resected gross residual disease (R2) or Positive regional nodes” and add a supporting reference (see above) | 16 | 0 | 0 | 11 |

See Submission for references

### INTRA-1
External request: Submission from ASTRO: The category levels should be assigned based on the treatment options.  
**Rationale:** Locoregional therapy overall is listed as a category 2B option, although there are now sub-bullets for EBRT and arterially directed therapies

| Panel consensus was to clarify locoregional treatment options for unresectable and metastatic intrahepatic cholangiocarcinoma. Consideration of locoregional therapy is now a category 2A option. Both radiation therapy (therapy modalities now described in greater detail in GALL-C) and arterially directed therapies are now listed as appropriate locoregional therapy options. | 16 | 0 | 0 | 11 |

See Submission for references

### INTRA-1, & EXTRA-1
Internal request: Consider adding molecular testing for all unresectable and metastatic intrahepatic and extrahepatic cholangiocarcinoma tumors.

| Panel consensus was to add a recommendation for unresectable and metastatic intrahepatic and extrahepatic cholangiocarcinoma tumors: “Consider molecular testing, including MSI testing” | 16 | 0 | 0 | 11 |

### INTRA-2
External request: Submission from ASTRO: Chemoradiation and radiation should be added as treatment options.  
**Rationale:** Chemoradiation and radiation are not listed as treatment options in Residual Local Disease (R2 resection). Residual local disease is clinically similar to unresectable disease, and therefore chemoradiation and radiation should be listed as treatment options.

| Panel consensus was to add chemoradiation following chemotherapy as a treatment option for patients with microscopic margins (R1) or positive regional nodes, or residual local disease (R2 resection) along with a supporting reference: “Ben-Josef E, Guthrie KA, El-Khoueiry AB, et al. SWOG S0809: A Phase II Intergroup Trial of Adjuvant Capecitabine and Gemcitabine Followed by Radiotherapy and Concurrent Capecitabine in Extrahepatic Cholangiocarcinoma and Gallbladder Carcinoma. J Clin Oncol. 2015;33(24):2617-2622.” | 16 | 0 | 0 | 11 |

See Submission for references
### EXTRA-1
**External request:** Submission from ASTRO: The unresectable category should be divided into hilar tumors which can be referred for evaluation for transplant and distal EHCC which would go for definitive therapy with chemo or chemoradiation. Include in the algorithm that one should avoid a percutaneous biopsy because it will make patients ineligible for transplant.

**Rationale:** There is no distinction between hilar and distal extrahepatic CC. This is particularly important for the unresectable pathway since only hilar tumors would be referred for transplant. Distal EHCC can also be unresectable due to vascular involvement and would not be considered for a transplant regimen.

Panel consensus was to not divide the unresectable section into hilar and distal EHCC and to leave footnote “e” about the concern for transplant ineligibility after biopsy as a footnote.

See Submission for references

### EXTRA-2
**External request:** Submission from ASTRO: Chemoradiation and radiation should be added as treatment options.

**Rationale:** Chemoradiation and radiation are not listed as treatment options in Residual Local Disease (R2 resection). Residual local disease is clinically similar to unresectable disease, and therefore chemoradiation and radiation should be listed as treatment options.

Panel consensus was to add chemoradiation following chemotherapy as a treatment option for patients with resected, positive margin (R1) or resected gross residual disease (R2) or positive regional nodes along with a supporting reference: "Ben-Josef E, Guthrie KA, El-Khoueiry AB, et al. SWOG S0809: A Phase II Intergroup Trial of Adjuvant Capecitabine and Gemcitabine Followed by Radiotherapy and Concurrent Capecitabine in Extrahepatic Cholangiocarcinoma and Gallbladder Carcinoma. J Clin Oncol. 2015;33(24):2617-2622."

See Submission for references