

Mini-Brief

Update Liver Diagnosis Code Nomenclature & Treatment Options for HCC Exceptions

OPTN Liver and Intestinal Organ Transplantation Committee

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Update Liver Diagnosis Code Nomenclature & Treatment Options for HCC Exceptions

Affected Instruments: Transplant Candidate Registration (TCR), Transplant Recipient Registration (TRR), Transplant Recipient Follow-up (TRF), Hepatocellular Carcinoma (HCC) Exception Forms

Sponsoring Committee: Liver & Intestinal Organ Transplantation

Executive Committee Meeting: March 19, 2024

Purpose

The purpose of this mini brief is to propose two non-substantive data collection modifications:

- Updating nomenclature for liver diagnoses found on the Transplant Candidate Registration (TCR) and Transplant Recipient Registration (TRR), and Transplant Recipient Follow-up (TRF) forms.
- Adding two new treatment options to the hepatocellular carcinoma (HCC) initial and extension exception forms.

Proposed Changes

The following overviews non-substantive changes that affect response options within OMB approved data elements and forms. Response options are provided for certain data elements that allow the user to select an option from pre-populated responses. These modifications do not change any data elements but create new response options that will allow transplant programs to enter accurate data in regard to new liver diagnoses and new HCC treatments.

Liver Diagnosis Code Nomenclature

For the first set of updates, the OPTN Liver and Intestine Organ Transplantation Committee (the Committee) proposes to deactivate the diagnosis code of *cirrhosis: fatty liver (NASH)* and add two new diagnosis codes of *cirrhosis: metabolic dysfunction-associated steatohepatitis (MASH)* and *cirrhosis: metabolic dysfunction and alcohol-related/associated liver disease (MetALD)*. Diagnosis codes appear on the pediatric and adult liver TCR, TRR, and TRF forms as a response option for diagnosis related data elements.¹ Currently, these diagnoses do not appear in OPTN policy or guidance, so no additional changes are required. The proposed modifications are overviewed in **Table 1**.

These proposed changes result from a recent multisociety Delphi consensus statement that terminology related to nonalcoholic fatty liver disease (NAFLD) was outdated.² It has been noted that while the

¹ The diagnosis codes are available for entry for the data elements *Primary Diagnosis* and *Secondary Diagnosis* on the TCR. The diagnosis codes are available for entry for the data elements *Primary Diagnosis* and *Pathology Confirming Liver Diagnosis of Hospital Discharge* on the TRR. The entered diagnosis code for *Pathology Confirming Liver Diagnosis of Hospital Discharge* appears on the TRF forms as read only.

² A total of 236 panelists from 56 countries participated in the multistakeholder effort under the auspices of the American

nomenclature is widely used, it has been appreciated that the term “nonalcoholic” did not accurately capture what the etiology of the disease was, and notably, the term “fatty” has been considered to be stigmatizing by some.³ Therefore, a multisociety Delphi consensus process proposed new nomenclature and updated definitions for conditions formerly encompassed by the term NAFLD.

Of the conditions included in the new category of metabolic dysfunction-associated steatotic liver disease (MASLD) (previously NAFLD), NASH is the only diagnosis appearing in OPTN data collection. Therefore, adding MASH and MetALD as replacement diagnosis codes for NASH will allow for the diagnosis codes to align with the newly adopted terminology of the community and ensure that the OPTN is not using stigmatizing nomenclature.

The creation of MetALD as a new diagnosis is also the result of the global consensus process to update terminology related to MASLD. MetALD was created because it is felt to be distinctly different from the diagnosis of MASH. Candidates with MetALD consumed some alcohol, but not enough to diagnose it as an alcohol-related disease.⁴ Therefore, collecting granular data on the population of candidates that meet these diagnostic criteria will allow for a greater understanding of outcomes for these individuals.

The Committee determined that education of the liver transplant community will be paramount because MetALD is a new diagnosis in the nomenclature, and more awareness is needed to understand the definition.⁵

Table 1: Proposed Modifications to Diagnosis Codes

Current Nomenclature	Proposed Nomenclature	Affected Forms	Organs
Cirrhosis: Fatty Liver (NASH)	Cirrhosis: Metabolic Dysfunction-Associated Steatohepatitis (MASH)	Transplant Candidate Registration (TCR) Transplant Recipient Registration (TRR) Transplant Recipient Follow-up (TRF)	Liver
<i>Not currently collected</i>	Cirrhosis: Metabolic Dysfunction and Alcohol-related/associated Liver Disease (MetALD)	Transplant Candidate Registration (TCR) Transplant Recipient Registration (TRR) Transplant Recipient Follow-up (TRF)	Liver

Association for the Study of Liver Diseases (AASLD) and the European Association for the Study of the Liver (EASL) in collaboration with the Asociación Latinoamericana para el Estudio del Hígado (ALEH). Engagement included hepatologists, gastroenterologists, pediatricians, endocrinologists, hepatopathologists, and public health and obesity experts along with colleagues from industry, regulatory agencies, and patient advocacy organizations.

³ Rinella, Mary E.; Lazarus, Jeffrey V.; Ratziu, Vlad et al., on behalf of the NAFLD Nomenclature consensus group. A multisociety Delphi consensus statement on new fatty liver disease nomenclature. *Hepatology* 78(6):p 1966-1986, December 2023. | DOI: 10.1097/HEP.0000000000000520

⁴ Rinella, Mary E.; Lazarus, Jeffrey V.; Ratziu, Vlad et al., on behalf of the NAFLD Nomenclature consensus group. A multisociety Delphi consensus statement on new fatty liver disease nomenclature. *Hepatology* 78(6):p 1966-1986, December 2023. | DOI: 10.1097/HEP.0000000000000520

⁵ OPTN National Liver Review Board (NLRB) Subcommittee, *Meeting Summary*, January 9, 2024. Available at optn.transplant.hrsa.gov.

Treatment Options in HCC

For the second set of updates, the Committee proposes adding the options of “*Histotripsy*” and “*Other*” to the locoregional treatments section within the HCC initial and extension exception forms in the OPTN computer system. Policy 9.5.I. *Requirements for Hepatocellular Carcinoma (HCC) MELD or PELD Score Exceptions* outlines the required criteria for a candidate to automatically be approved for an initial HCC exception as well as extension requests.⁶ One of these criteria is that the candidate must undergo a thorough assessment that includes an indication whether the candidate has undergone locoregional therapy. While policy does not mandate specific types of therapy, the HCC exception forms collect more granular information. Current options are shown in **Figure 1**.

Figure 1: Locoregional Treatments Section on the HCC Exception Forms (as of March 2024)

Loco-Regional Treatments
Select all that apply:

Chemical ablation	<input type="checkbox"/>
Chemoembolization	<input type="checkbox"/>
External beam radiation	<input type="checkbox"/>
Radiation microspheres	<input type="checkbox"/>
Thermal ablation	<input type="checkbox"/>

Histotripsy is a recently approved therapy for the treatment of liver cancer. It is considered to be an innovative, non-invasive treatment for liver cancer that uses a robotic machine to target and destroy cancer tissue with ultra-precise sound waves and has been approved by the U.S. Food and Drug Administration (FDA).⁷

However, since there is no option on the HCC exception form to indicate that a candidate received this specific therapy, it may create an unnecessary step of the transplant program having to submit a nonstandard exception. However, these exceptions should be automatically approved as long as the candidate meets all other criteria outlined in Policy 9.5.I.

With the addition of histotripsy, it was recognized that an “*other*” option would benefit future situations where new technologies may be approved and utilized to treat HCC. The “*other*” option would be a single selection and not have an associated free text field to enter which specific therapy was used. Transplant programs could input this information into the justification narrative, but it would not be required. Additionally, if there is an influx of the entry of “*other*”, the OPTN can gather community feedback to determine whether a new treatment option is being utilized and should be added to the HCC exception forms.

⁶ OPTN Policy 9.5.I *Requirements for Hepatocellular Carcinoma (HCC) MELD or PELD Score Exceptions* as of March 2024. Available at <https://optn.transplant.hrsa.gov/>.

⁷ The University of Chicago Medicine, *Histotripsy*. Available at <https://www.uchicagomedicine.org/cancer/types-treatments/histotripsy#:~:text=Histotripsy%20is%20a%20non%2Dinvasive,destroys%20only%20the%20cancerous%20tissue.>

Compliance Analysis

NOTA requires the Organ Procurement and Transplantation Network (OPTN) to “collect, analyze, and publish data concerning organ donation and transplants”⁸ and the OPTN Final Rule requires the OPTN to “maintain and operate an automated system for managing information about transplant candidates, transplant recipients, and organ donors, including a computerized list of individuals waiting for transplants” and “maintain records of all transplant candidates, all organ donors and all transplant recipients.”⁹ This proposal would update the information collected on liver transplant candidates to improve accurate data collection and inform future data analyses, such as evaluation of outcomes of liver recipients.

Implementation

Because these non-substantive proposed changes affect response options in OPTN data collection and forms that are already OMB approved, and do not add, modify, or remove fields, additional OMB approval is not required. Pending approval by the OPTN, these modifications will be slated for implementation. Members will not need to take any specific actions. Upon implementation, changes to these forms will be communicated to the community along with associated education.

⁸ 42 USC. §274(b)(2)(I)

⁹ 42 C.F.R §121.11(a)(1)(i)-(ii)

Data Modifications

1 **RESOLVED**, that the proposed modifications to response options within data collected by the OPTN, as
 2 set forth below, are hereby approved, effective pending implementation and notice to OPTN
 3 members.

4 **Table 1: Proposed Removal of Response Options**

Form	Data Field(s)	Response Option Deactivated
Transplant Candidate Registration (TCR): Liver	<i>Primary Diagnosis, Secondary Diagnosis</i>	• Cirrhosis: Fatty liver (NASH)
Transplant Recipient Registration (TRR): Liver	<i>Primary Diagnosis, Pathology Confirming Liver Diagnosis of Hospital Discharge</i>	• Cirrhosis: Fatty liver (NASH)

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 6 **Table 2: Proposed New Data Response Options**

Form	Data Field(s)	Response Option Added
Transplant Candidate Registration (TCR): Liver	<i>Primary Diagnosis, Secondary Diagnosis</i>	<ul style="list-style-type: none"> • <u>Cirrhosis: Metabolic Dysfunction-Associated Steatohepatitis (MASH)</u> • <u>Cirrhosis: Metabolic Dysfunction and alcohol-related/associated liver disease (MetALD)</u>
Transplant Recipient Registration (TRR): Liver	<i>Primary Diagnosis, Pathology Confirming Liver Diagnosis of Hospital Discharge</i>	<ul style="list-style-type: none"> • <u>Cirrhosis: Metabolic Dysfunction-Associated Steatohepatitis (MASH)</u> • <u>Cirrhosis: Metabolic Dysfunction and alcohol-related/associated liver disease (MetALD)</u>
OPTN HCC Exception Form (Initial and Extension)	<i>Locoregional Treatments</i>	<ul style="list-style-type: none"> • <u>Histotripsy</u> • <u>Other</u>

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