Supplementary Table 2. Grading of the responses from the ChatGPT Language Model for HCC-related questions

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
Basic Knowledge			
1. What is the liver? what is the liver's function? Where is the liver located?	 The liver is a large organ located in the upper right side of the abdomen. It plays a vital role in many important bodily functions, including: Metabolism: The liver helps to break down nutrients from the diet and store them for energy or later use. It also plays a role in converting excess glucose (sugar) into glycogen, which can be stored in the liver and muscles for use when the body needs additional energy. Detoxification: The liver helps to filter toxins, such as alcohol and certain medications, from the blood. It also plays a role in the metabolism of drugs, hormones, and other substances that can be harmful to the body if left unchecked. Blood production: The liver produces certain proteins that are necessary for blood clotting, such as fibrinogen and prothrombin. It also stores and releases iron, which is necessary for the production of red blood cells. Bile production: The liver produces bile, which is a yellowish-green fluid that helps to digest fats and absorb fat-soluble vitamins. Bile is stored in the gallbladder and released into the small intestine as needed. Overall, the liver is a vital organ that plays a key role in maintaining the overall health and well-being of the 	Similar	2
2. What is hepatocellular carcinoma, also known as liver cancer?	 body. Hepatocellular carcinoma, also known as liver cancer, is a type of cancer that starts in the liver. The liver is an important organ that performs many vital functions in the body, including filtering toxins from the blood, producing bile to help digest fats, and storing nutrients and energy. Liver cancer is a relatively rare form of cancer, but it is often aggressive and has a poor prognosis. It can be caused by a variety of factors, including chronic infection with the hepatitis B or C virus, heavy alcohol consumption, and certain inherited conditions that increase the risk of liver disease. Symptoms of liver cancer may include abdominal pain, weight loss, fatigue, and jaundice (a yellowing of the skin and whites of the eyes). The diagnosis of liver cancer is usually made through a combination of imaging tests (such as CT or MRI), blood tests, and biopsy (removing a small sample of tissue for examination under a microscope). Treatment for liver cancer may include surgery, chemotherapy, radiation therapy, or a combination of these approaches. The choice of treatment depends on the stage and size of the cancer, as well as the overall health of the patient. 	Similar	3
3. Is hepatocellular carcinoma a fast- growing cancer?	Hepatocellular carcinoma, also known as liver cancer, can vary in terms of its growth rate. Some liver cancers can grow rapidly and spread to other parts of the body quickly, while others may grow more slowly. The rate at which a particular liver cancer grows can depend on a number of factors, including the stage of the cancer (how advanced it is), the location of the tumor, and the patient's overall health. It is important to discuss the specific characteristics of an individual's liver cancer with their healthcare team in order to determine the best course of treatment.	Similar	3

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect

2

N/A

Reviewer 3 grades for the responses with discrepancies

2

2

2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
4. Which population does hepatocellular carcinoma affect the most?	 Hepatocellular carcinoma (HCC) is a type of liver cancer that is more common in certain populations. It is most commonly found in people who have underlying liver diseases such as chronic hepatitis B or C infection, alcohol-related liver disease, or cirrhosis. It is also more common in people who are obese or have diabetes. HCC is more common in men than in women and is more common in people over the age of 50. It is also more common in certain geographic regions, such as Africa, Asia, and South America, where hepatitis B infection is more prevalent. HCC can also occur in people who have no known risk factors, although this is less common. 	Hepatocellular carcinoma, also known as liver cancer, is more common in certain populations. It is more common in males than females and is more common in people over the age of 60. It is also more common in people with certain underlying health conditions, such as chronic hepatitis B or C infection, cirrhosis, or nonalcoholic fatty liver disease. It is also more common in people who have a family history of liver cancer or who have a history of heavy alcohol consumption. People who live in certain parts of the world, such as Africa and Asia, are also more likely to develop liver cancer.	
5. What are the symptoms of hepatocellular carcinoma?	 Hepatocellular carcinoma (HCC) is a type of liver cancer that can cause a variety of symptoms, including: Abdominal pain or discomfort: HCC can cause pain or discomfort in the upper right side of the abdomen, where the liver is located. Weight loss: HCC can cause unintentional weight loss, as the body may be unable to properly metabolize food and nutrients due to the presence of cancer. Loss of appetite: HCC can cause a loss of appetite, leading to further weight loss and malnutrition. Nausea and vomiting: HCC can cause nausea and vomiting, which may be accompanied by abdominal pain or discomfort. Jaundice: HCC can cause the skin and whites of the eyes to become yellow due to an accumulation of bilirubin in the bloodstream. Swelling in the abdomen: HCC can cause swelling in the abdomen due to an accumulation of fluid, a condition known as ascites. Fatigue: HCC can cause fatigue due to the body's inability to properly metabolize nutrients and produce energy. Fever: HCC can cause a fever due to inflammation or infection. It's important to note that many of these symptoms can be caused by other conditions, so it's important to speak with a healthcare professional as soon as possible. 	Similar	3
6. How common is liver cancer?	Liver cancer, also known as hepatocellular carcinoma (HCC), is a relatively uncommon cancer, but it is the fifth most common cause of cancer-related death worldwide. The incidence of liver cancer varies widely by geographical region, with higher rates in developing countries, especially in Africa and East Asia. In the United States, the overall incidence of liver cancer is relatively low, with about 40,000 new cases diagnosed each year. However, the incidence of liver cancer has been increasing in the United States in recent decades, particularly among certain groups such as middle-aged and older men and individuals with chronic liver disease. Risk factors for liver cancer include hepatitis B or C infection, cirrhosis, nonalcoholic fatty liver disease, alcohol abuse, and certain inherited conditions such as hemochromatosis and alpha-1 antitrypsin deficiency. If liver cancer is diagnosed at an early stage, treatment may be more effective, so it is important for individuals to be aware of the signs and symptoms and to seek medical attention if they have any concerns.	Similar	2

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
3,2	3,2

2

3

N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
7. What are the causes or risk factors for hepatocellular carcinoma?	Hepatocellular carcinoma (HCC) is a type of liver cancer that occurs when the cells in the liver (hepatocytes) become cancerous and grow out of control. HCC is the most common type of liver cancer and is more common in men than women.	Hepatocellular carcinoma (HCC) is a type of liver cancer that originates in the liver cells (hepatocytes). There are several known risk factors for HCC, including:	
carcinoma:	There are several risk factors for HCC, including:	Chronic hepatitis B and C infections: These viral infections are the most common cause of HCC worldwide.	
	Chronic infection with the hepatitis B or C virus: Chronic infection with these viruses can cause liver damage and increase the risk of HCC.	Cirrhosis: This is a condition in which scar tissue replaces healthy liver tissue, reducing its ability to function. Cirrhosis can be caused by a	
	Cirrhosis: This is a condition in which the liver is scarred and damaged. It can be caused by long-term alcohol abuse, nonalcoholic fatty liver disease (NAFLD), or other liver diseases.	variety of factors, including alcohol abuse, nonalcoholic fatty liver disease (NAFLD), and autoimmune liver disease.	
	Alcohol abuse: Heavy alcohol consumption can cause liver damage and increase the risk of HCC.	Alcohol abuse: Heavy alcohol consumption can damage the liver and increase the risk of HCC.	
	Nonalcoholic fatty liver disease (NAFLD): This is a condition in which excess fat accumulates in the liver, leading to liver damage and an increased risk of HCC.	Nonalcoholic fatty liver disease (NAFLD): This is a condition in which excess fat is deposited in the liver, leading to inflammation and	
	Diabetes: People with diabetes have an increased risk of developing HCC.	scarring. NAFLD is often associated with obesity, insulin resistance and metabolic syndrome.	
	Obesity: Being overweight or obese can increase the risk of HCC.	Hemochromatosis: This is a genetic disorder that causes the body to	
	Exposure to certain chemicals: Exposure to certain chemicals, such as aflatoxins (toxins produced by certain types of mold), can increase the risk of HCC.	absorb and retain too much iron. Excess iron can accumulate in the liver and increase the risk of HCC.	
	Genetic factors: Some people may have a higher risk of developing HCC due to genetic factors.	Aflatoxins: These are toxins produced by certain types of fungi that can grow on foods such as grains, peanuts, and corn. Aflatoxins have been	
	will develop HCC. However, it's important to be aware of these factors and to take steps to reduce the risk of HCC, such as getting vaccinated against hepatitis B, avoiding alcohol abuse and exposure to toxic Or chemicals, and maintaining a healthy weight.	linked to an increased risk of HCC in certain parts of the world.	
		Oral contraceptives: Some studies have suggested that long-term use of oral contraceptives may increase the risk of HCC, particularly in women with other risk factors such as hepatitis B infection or cirrhosis.	
		Anabolic steroid use: Anabolic steroids are synthetic hormones that can be taken as drugs or injected to increase muscle mass. They have been linked to an increased risk of HCC.	
		Primary sclerosing cholangitis: This is a rare autoimmune disorder that affects the bile ducts in the liver. It can lead to scarring and	
		inflammation of the liver, increasing the risk of HCC.	
		It's important to note that having one or more of these risk factors does not necessarily mean that a person will develop HCC. The risk of HCC can be reduced by avoiding behaviors and exposures that increase the risk, such as avoiding heavy alcohol consumption, protecting	
		against viral infections, and maintaining a healthy weight.	

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect

2,1

3,3

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
8. If a parent had/has liver cancer, are their children at greater risk of getting it? Is liver cancer hereditary?	 Liver cancer can be hereditary in some cases, but it is not always passed down from parent to child. There are several factors that can increase a person's risk of developing liver cancer, including certain inherited genetic conditions, chronic viral infections, and certain environmental and lifestyle factors. Inherited genetic conditions that can increase the risk of liver cancer include hereditary hemochromatosis, which is a condition that causes the body to absorb and retain too much iron, and familial adenomatous polyposis (FAP), which is a condition that causes the development of numerous polyps in the colon and rectum. Chronic viral infections, such as hepatitis B and hepatitis C, can also increase the risk of liver cancer. These infections are caused by viruses that can damage the liver and lead to liver scarring (cirrhosis) over time. Cirrhosis is a major risk factor for the development of liver cancer. There are also several environmental and lifestyle factors that can increase the risk of liver cancer, including heavy alcohol consumption, exposure to certain chemicals and toxins, and obesity. If a parent has liver cancer, their children may be at an increased risk of developing the condition, 	Similar	1
	depending on the underlying cause of the cancer. It is important to discuss any concerns about inherited risk with a healthcare provider.		
9. Is fatty liver disease associated with liver cancer?	Fatty liver disease, also known as nonalcoholic fatty liver disease (NAFLD), is a condition that occurs when there is a build-up of excess fat in the liver. It is a common condition that is often associated with obesity and other conditions such as diabetes and high cholesterol. In most cases, fatty liver disease does not cause serious health problems. However, in some cases, it can progress to a more serious condition called nonalcoholic steatohepatitis (NASH), which can lead to scarring of the liver (cirrhosis) and, in some cases, liver cancer.	Similar	1
	Liver cancer is a rare type of cancer that occurs when cells in the liver grow out of control and form a tumor. It is a serious and potentially life-threatening condition that requires prompt medical attention. There are several types of liver cancer, including primary liver cancer, which starts in the liver, and secondary liver cancer, which spreads to the liver from another part of the body.		
	There is a small increased risk of liver cancer in people with advanced stages of nonalcoholic steatohepatitis (NASH), particularly in those with cirrhosis. However, the overall risk of developing liver cancer in people with NAFLD or NASH is still relatively low. It is important to note that there are many other risk factors for liver cancer, including heavy alcohol consumption, chronic hepatitis B or C infection, and certain inherited conditions.		
	It is important for people with fatty liver disease to manage their condition through lifestyle changes, such as eating a healthy diet and getting regular exercise, to prevent it from progressing to a more serious stage. It is also important for people with fatty liver disease to have regular check-ups with their healthcare provider to monitor the condition and catch any potential complications early.		

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
2	2

2

2

1

Reviewer 3 grades for the responses with discrepancies

			Reviewer 1 grades
Questions	Responses 1	Responses 2	1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
10. Does Hep B cause liver cancer?	Yes, chronic hepatitis B infection is a leading cause of liver cancer. When a person is infected with the hepatitis B virus (HBV), the virus can remain in the body for many years and cause inflammation and damage to the liver. This long-term inflammation can lead to the development of liver scarring (cirrhosis), which increases the risk of developing liver cancer. It is estimated that up to 25% of people with chronic hepatitis B will eventually develop liver cancer.	Similar	1
	It's important to note that not everyone with hepatitis B will develop liver cancer. The risk of developing liver cancer is higher for people with chronic hepatitis B who have had the infection for many years, and for those who have other risk factors for liver cancer such as heavy alcohol use, obesity, or other liver diseases. Treatment with antiviral medications can help reduce the risk of liver cancer in people with chronic hepatitis B by controlling the virus and reducing inflammation. If you have hepatitis B, it's important to talk to your healthcare provider about your risk of developing liver cancer and the best ways to manage your health.		
11. Does Hep C cause liver cancer?	 Yes, hepatitis C infection can increase the risk of developing liver cancer. Hepatitis C is a viral infection that affects the liver, and it can lead to chronic liver inflammation. Chronic inflammation can damage liver cells and lead to the development of liver scarring (fibrosis) and, in some cases, liver cancer. The risk of developing liver cancer is higher in people who have had hepatitis C for a long time and in those who have other risk factors for liver cancer, such as heavy alcohol use or cirrhosis (advanced liver scarring). However, it is important to note that not all people with hepatitis C will develop liver cancer. It is important for people with hepatitis C to receive proper treatment to reduce the risk of liver damage and liver cancer. There are now highly effective treatments available that can cure hepatitis C, which can help reduce the risk of liver cancer and other complications of the infection. If you have hepatitis C, it is important be also requered here the rest of the rest	Similar	1
12. Does being overweight cause liver cancer?	important to talk to your healthcare provider about your treatment options. Being overweight or obese can increase the risk of developing liver cancer. Obesity is a known risk factor for nonalcoholic fatty liver disease (NAFLD), which can progress to nonalcoholic steatohepatitis (NASH) and eventually liver cancer. However, it is important to note that there are other risk factors for liver cancer, including viral hepatitis infection, excessive alcohol consumption, and inherited liver disorders. It is also possible to develop liver cancer without having any of these risk factors. If you are concerned about your risk of liver cancer, it is a good idea to discuss your concerns with a healthcare provider.	Similar	1
	It is possible for liver cancer to come back after treatment, although the likelihood of this occurring can vary depending on a number of factors. Some of the things that can influence the likelihood of liver cancer recurring include the stage of the cancer at the time of treatment, the type of treatment that was received, and the overall health of the individual. In general, the earlier liver cancer is diagnosed and treated, the better the chances of long-term survival and a lower risk of the cancer coming back. However, it is important to be aware that there are no guarantees when it comes to cancer, and some people may experience a recurrence despite receiving effective treatment. If you have received treatment for liver cancer and have concerns about the possibility of the cancer coming back, it is important to speak with your medical team for more information.	Liver cancer can come back after treatment, although the likelihood of this happening can vary depending on a number of factors. Some of the factors that can affect the likelihood of liver cancer recurring include the stage of the cancer at the time of treatment, the type of treatment that was received, and the overall health of the patient. In general, the earlier the cancer is caught and treated, the less likely it is to come back. However, it is important to note that there is no guarantee that liver cancer will not recur, and it is important for individuals who have had liver cancer to be monitored for any signs of a recurrence.	1,2

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	1

2	1
2	1
2,2	1,2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
14. Can a patient's relative donate their liver to a patient with liver cancer?	Yes, it is possible for a living donor to donate part of their liver to a patient with liver cancer. This is known as living donor liver transplantation. The procedure is complex and carries some risks for the donor, but it can be an option for patients who need a liver transplant but do not have a suitable deceased donor available. The decision to undergo living donor liver transplantation is typically made after careful evaluation by a transplant team, including doctors, surgeons, and social workers. The team will consider factors such as the health and suitability of the donor, the extent of the patient's liver cancer, and the availability of other treatment options.	Similar	1
15. Does Hepatocellular Carcinoma (HCC) worsen after Hepatitis C (HCV) treatment?	It is generally believed that successful treatment of Hepatitis C (HCV) can prevent the development or progression of Hepatocellular Carcinoma (HCC). However, in some cases, HCC may still develop or worsen despite successful HCV treatment. This can be due to a variety of factors, such as a history of heavy alcohol consumption, exposure to other liver toxins, or the presence of other risk factors for HCC. It is important for individuals with a history of HCV to continue monitoring for the development or worsening of HCC and to seek medical attention if any signs or symptoms arise.	Hepatocellular carcinoma (HCC) is a type of liver cancer that can develop in people with chronic hepatitis C virus (HCV) infection. While HCV treatment can help to reduce the risk of developing HCC, it is not always successful in preventing the development of HCC in people with HCV. In fact, some people may still develop HCC even after successful HCV treatment.	1,2
		There are several factors that can increase the risk of developing HCC in people with chronic HCV infection. These include:	
		Advanced age: The risk of developing HCC increases with age, especially in people over the age of 60.	
		Male gender: Men are more likely to develop HCC than women.	
		Heavy alcohol use: Chronic alcohol use can increase the risk of developing HCC.	
		Other liver diseases: People with other liver diseases, such as cirrhosis, are at increased risk of developing HCC.	
		Obesity: Being overweight or obese can increase the risk of developing HCC.	
		It is important for people with chronic HCV infection to be regularly monitored for the development of HCC, even if they have received successful HCV treatment. This can involve regular blood tests, ultrasound exams, and other imaging tests to check for signs of HCC.	

Reviewer 3 grades for the responses with discrepancies
1

2,2

1,2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
16. Does COVID accelerate the rate of hepatocellular carcinoma progression?	 There is some evidence to suggest that COVID-19 may increase the risk of hepatocellular carcinoma (HCC), which is the most common type of liver cancer. One study found that individuals with COVID-19 and preexisting liver disease, including hepatitis B and C, were at higher risk of developing HCC. However, it is important to note that the relationship between COVID-19 and the progression of HCC is not fully understood and more research is needed to determine the exact nature of this relationship. It is also worth noting that HCC is typically a slow-growing cancer and it can take years for it to progress to advanced stages. It is important for individuals with liver disease, including those with HCC, to take steps to protect themselves from COVID-19, such as getting vaccinated and following recommended precautions to prevent the spread of the virus. It is also important for individuals with liver disease to continue to follow their treatment plan and to keep in close contact with their healthcare provider to manage their condition. 	 There is limited evidence to suggest that COVID-19 may have an effect on the progression of hepatocellular carcinoma (HCC), a type of liver cancer. Some studies have reported that COVID-19 infection may be associated with an increased risk of developing HCC, while others have not found such a connection. One study published in the journal Hepatology found that COVID-19 infection was significantly associated with the development of HCC in a group of patients with liver cirrhosis. Another study published in the journal Gastroenterology found that COVID-19 infection was associated with an increased risk of HCC in patients with underlying liver disease. However, it is important to note that these studies are observational and do not establish a causal relationship between COVID-19 and HCC. More research is needed to fully understand the potential relationship between the two. It is also important to note that HCC is generally a slow-growing cancer, and the rate of progression can vary significantly from one person to another. Factors that may affect the rate of HCC progression include the size and location of the tumor, the presence of underlying liver disease, and the individual's overall health. 	

Reviewer 2 grades 1. Comprehensive	Reviewer 3 grades for the responses with
-	-
2. Correct but inadequate	discrepancies
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	

2,1

1,1

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
Diagnosis			
17. How is hepatocellular carcinoma detected/ diagnosed?	Hepatocellular carcinoma, also known as liver cancer, is typically detected through a combination of medical history, physical examination, and various imaging and laboratory tests. Some common methods of detecting and diagnosing hepatocellular carcinoma include:	Similar	2
	some common methods of detecting and diagnosing nepatocential carcinoma include:		
	Blood tests: Blood tests can help detect liver cancer by measuring levels of certain proteins or enzymes that are often elevated in people with liver cancer. These include alpha-fetoprotein (AFP), lactate dehydrogenase (LDH), and gamma-glutamyltransferase (GGT).		
	Ultrasound: An ultrasound is a non-invasive test that uses sound waves to create images of the inside of the body. It can be used to detect abnormalities in the liver, such as a tumor.		
	CT scan: A CT scan is a type of X-ray that produces detailed images of the body. It can be used to detect abnormalities in the liver, such as a tumor.		
	MRI: An MRI is a test that uses magnetic fields and radio waves to create detailed images of the inside of the body. It can be used to detect abnormalities in the liver, such as a tumor.		
	Biopsy: A biopsy is a procedure in which a small sample of tissue is removed from the liver and examined under a microscope to determine if cancer cells are present. A biopsy is often necessary to confirm a diagnosis of liver cancer.		
	If liver cancer is suspected, a healthcare provider will typically order one or more of these tests to confirm the diagnosis and determine the stage of the cancer (how advanced it is). The treatment options for liver cancer depend on the stage of the cancer and the overall health of the person.		

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect

Reviewer 3 grades for the responses with discrepancies

1

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
18. What are the different stages of hepatocellular carcinoma?	 Hepatocellular carcinoma (HCC) is a type of liver cancer that starts in the liver cells (hepatocytes). HCC is typically staged using the TNM staging system, which takes into account the size and spread of the tumor, as well as the presence of cancer in nearby lymph nodes and distant organs. The stages of HCC are as follows: Stage I: The tumor is small and has not spread beyond the liver. Stage II: The tumor is larger, but has not spread beyond the liver. Stage III: The tumor is any size and has spread to nearby lymph nodes or organs. Stage IV: The tumor is any size and has spread to distant organs or tissues. It's important to note that the stage of a cancer, including HCC, can change over time as the cancer grows or spreads. Therefore, it's important for individuals with HCC to undergo regular follow-up exams and tests to monitor the cancer's progression. 	 Hepatocellular carcinoma (HCC) is a type of liver cancer that originates in the cells of the liver. The stages of HCC describe the extent of the cancer and how far it has spread. There are several different staging systems for HCC, but the most commonly used one is the Barcelona Clinic Liver Cancer (BCLC) staging system. The BCLC staging system divides HCC into five stages: Early stage (BCLC 0): The cancer is small and confined to the liver. It may or may not have spread to nearby lymph nodes. Intermediate stage (BCLC A): The cancer is larger and may have spread to nearby lymph nodes or blood vessels, but it is still confined to the liver. Advanced stage (BCLC B): The cancer has spread to both lobes of the liver or to other parts of the body, such as the lungs or bones. Very advanced stage (BCLC C): The cancer has spread extensively and is not responding to treatment. The patient may also have significant liver damage or other serious health problems. Terminal stage (BCLC D): The patient has advanced cancer and serious health problems that make treatment no longer appropriate. Palliative care is the main focus at this stage. It's important to note that the stage of HCC can change over time as the cancer progresses or responds to treatment. 	
19. What imaging test is best to diagnose HCC?	 Hepatocellular carcinoma (HCC) is a type of liver cancer. There are several imaging tests that can be used to diagnose HCC, including the following: Ultrasound: This is a non-invasive test that uses high-frequency sound waves to create images of the liver. It is often the first test performed to evaluate liver abnormalities. Computed tomography (CT) scan: This test uses X-rays and a computer to create detailed images of the liver. It can show the size, shape, and location of a liver tumor. Magnetic resonance imaging (MRI): This test uses a magnetic field and radio waves to create detailed images of the liver. It can show the size, shape, and location of a liver tumor. Positron emission tomography (PET) scan: This test uses a small amount of radioactive material, called a tracer, to show how cells in the liver are functioning. It can help distinguish between cancerous and noncancerous tissue. The best imaging test for diagnosing HCC will depend on the specific circumstances of the patient, including their overall health, the location and size of the suspected tumor, and any other medical conditions they may have. Your doctor will be able to recommend the most appropriate test for you. 	Similar	4

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
3,2	3,3

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	
20. Can hepatocellular carcinoma be diagnosed from a PET, MRI or CT scan alone?	 Hepatocellular carcinoma (HCC) can be diagnosed using a combination of imaging tests, including PET, MRI, and CT scans. However, none of these tests can definitively diagnose HCC on their own. PET scans are used to look for areas of increased metabolic activity in the body, which can indicate the presence of cancer cells. However, PET scans are not very sensitive for detecting small tumors or tumors in certain locations, such as the liver. MRI scans are used to create detailed images of the body using a strong magnetic field and radio waves. MRI scans can be used to detect HCC, but they may not be as sensitive as other imaging tests, such as CT scans. CT scans are used to create detailed images of the body using x-rays. CT scans are highly sensitive for detecting HCC and can be used to evaluate the size, location, and extent of the tumor. To diagnose HCC, a healthcare provider will typically order a combination of imaging tests, such as PET, MRI, and CT scans, along with other diagnostic tests, such as blood tests and biopsies. The results of these tests will be used to confirm the diagnosis and determine the best course of treatment. 	or CT scan alone. These imaging tests can help identify the presence and location of abnormal growths or tumors in the liver.		
21. Is it possible to have hepatocellular carcinoma with a normal AFP test?	 Yes, it is possible to have hepatocellular carcinoma (HCC) with a normal alpha-fetoprotein (AFP) test. HCC is a type of liver cancer that can develop in people with chronic liver disease, such as cirrhosis or hepatitis. AFP is a protein produced by some types of liver cells and is often elevated in the blood of people with HCC. However, not all people with HCC will have an elevated AFP level, and it is possible to have HCC with a normal AFP level. There are several factors that can affect the accuracy of an AFP test in detecting HCC. For example, the stage of the cancer, the size of the tumor, and the presence of other liver abnormalities can all affect the level of AFP in the blood. In addition, certain medications and other medical conditions can also cause false-positive or false-negative results on an AFP test. It is important to note that an AFP test is just one tool that can be used to help diagnose HCC. Other tests, such as imaging studies (such as ultrasound, CT scan, or MRI) and liver biopsy, may also be used to help diagnose HCC and determine the best treatment options. If you are concerned about your risk of HCC or have symptoms that may be related to liver cancer, it is important to speak with a healthcare provider for proper evaluation and management. 	Similar	1	

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2.2	4.2

3,2

4,3

2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
22. What imaging test is best to diagnose HCC?	Hepatocellular carcinoma (HCC) is a type of liver cancer that can be difficult to diagnose because it often does not produce symptoms in the early stages. The most common imaging tests used to diagnose HCC are:	Similar	4
	Ultrasound: This test uses high-frequency sound waves to create a detailed image of the liver. It is non- invasive, relatively inexpensive, and widely available.		
	CT scan: This test uses X-rays to create detailed images of the liver. It is more expensive and requires the use of contrast dye, but it can provide more detailed images than ultrasound.		
	MRI: This test uses a magnetic field and radio waves to create detailed images of the liver. It is more expensive and requires the use of contrast dye, but it can provide excellent images of the liver and surrounding structures.		
	PET scan: This test uses a small amount of radioactive tracer to create detailed images of the liver. It is more expensive and requires the use of contrast dye, but it can help determine if cancer is present and if it has spread to other parts of the body.		
	Ultimately, the best imaging test for diagnosing HCC will depend on the individual patient and their specific circumstances. It is important to discuss the risks and benefits of each test with your healthcare provider to determine the most appropriate course of action.		

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
2	4

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
Treatment			
23. What are the treatment options for hepatocellular carcinoma?	Hepatocellular carcinoma (HCC) is a type of liver cancer that is usually treated with a combination of therapies, including surgery, chemotherapy, targeted therapy, and radiation therapy. The specific treatment options for HCC depend on the stage and location of the cancer, as well as the overall health and preferences of the patient.	Similar	2
	Surgery: If the cancer is localized (confined to the liver) and the patient is healthy enough to undergo surgery, the primary treatment option is usually surgical resection or liver transplantation. Surgical resection involves removing the part of the liver that contains the cancerous tumor, while liver transplantation involves replacing the entire diseased liver with a healthy one from a donor.		
	Chemotherapy: Chemotherapy involves using drugs to kill cancer cells. It can be given before or after surgery to shrink the tumor and kill any remaining cancer cells, or it can be given as a standalone treatment for advanced HCC that is not suitable for surgery.		
	Targeted therapy: Targeted therapies are drugs that block the growth and spread of cancer cells by targeting specific molecules involved in the growth and development of the cancer. They may be used in combination with chemotherapy or as a standalone treatment for advanced HCC.		
	Radiation therapy: Radiation therapy uses high-energy beams to kill cancer cells. It may be used to shrink the tumor before surgery, or as a standalone treatment for advanced HCC that is not suitable for surgery.		
	Other treatment options for HCC may include radiofrequency ablation (a procedure that uses heat to kill cancer cells), cryoablation (a procedure that uses extreme cold to kill cancer cells), and transarterial chemoembolization (a procedure that delivers chemotherapy directly to the liver through the blood vessels).		
	It is important to note that the success of these treatments depends on the stage and location of the cancer, as well as the overall health of the patient. It is also important to work closely with a healthcare team to determine the best treatment plan.		
24. What is transarterial chemoembolization for the treament of liver cancer?	Transarterial chemoembolization (TACE) is a treatment for liver cancer that involves injecting chemotherapy drugs directly into the liver through the artery that supplies blood to the liver. The chemotherapy drugs are delivered to the liver through a catheter, which is a thin tube inserted through a small incision in the groin.	Similar	1
	The procedure is usually performed by an interventional radiologist or a hepatologist, who uses imaging techniques (such as X-ray or ultrasound) to guide the catheter to the correct location in the liver. Once the chemotherapy drugs are injected, the blood supply to the cancerous tissue is blocked off by injecting small particles or a substance called embolic agents, which helps to keep the chemotherapy in the liver and increase its effectiveness.		
	TACE is often used in combination with other treatments, such as surgery and radiation therapy, to help control the growth and spread of liver cancer. It may be an option for people with liver cancer that has not responded to other treatments or has spread to other parts of the body. However, TACE is not suitable for everyone, and it is important to discuss the potential benefits and risks of the procedure with a medical team before deciding whether it is the right treatment for you.		

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect

Reviewer 3 grades for the responses with discrepancies

2

2

N/A

Questions	Responses 1		Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
25. What are the side effects of transarterial chemoembolization?	Transarterial chemoembolization (TACE) is a procedure used to treat cancer in which chemotherapy drugs are delivered directly to the tumor through the bloodstream. It is commonly used to treat liver cancer and other types of cancer that have spread to the liver.	Similar		1	2	1
	Like any medical procedure, TACE carries the risk of side effects. Some common side effects of TACE include:					
	Nausea and vomiting: These side effects may occur after the procedure and can be managed with medications.					
	Pain: Some people may experience pain at the site where the catheter was inserted. This can usually be managed with over-the-counter pain medications or prescription painkillers.					
	Fatigue: TACE can cause fatigue, which may last for several days or weeks after the procedure.					
	Changes in liver function: TACE can affect the function of the liver, and it is important to have regular blood tests to monitor liver function.					
	Infection: There is a risk of infection at the site where the catheter is inserted. This can usually be treated with antibiotics.					
	Bleeding: There is a risk of bleeding at the site where the catheter is inserted.					
	Allergic reactions: Some people may have an allergic reaction to the chemotherapy drugs or the contrast dye used during the procedure.					
	It's important to discuss the potential risks and side effects of TACE with your doctor before the procedure.					
26. What is transarterial radioembolization for the treament of liver cancer?	Transarterial radioembolization (TARE) is a type of interventional radiology procedure that is used to treat liver cancer. It involves injecting small beads or microspheres containing a radioactive material into the blood vessels that supply blood to the liver tumor. The microspheres become lodged in the blood vessels around the tumor, delivering a high dose of radiation to the cancer cells while minimizing exposure to healthy tissue.	Similar		3	1	3
	TARE is typically used in combination with other treatments, such as chemotherapy or external beam radiation therapy, to improve the effectiveness of treatment and reduce the size of the tumor. It is usually performed on patients with liver cancer that has spread to other parts of the body (metastatic liver cancer) or who are not candidates for surgery.					
	The procedure is performed under conscious sedation and usually takes about an hour. The patient is awake during the procedure but is given a medication to help them relax. The interventional radiologist uses imaging guidance, such as computed tomography (CT) or ultrasound, to guide the placement of the microspheres into the blood vessels around the liver tumor.					
	TARE is generally well tolerated and has a low risk of complications. However, as with any medical procedure, there are potential risks and side effects that should be discussed with a healthcare provider.					

Questions	Responses 1		Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
27. What are the side effects of transarterial radioembolization?	Transarterial radioembolization (TARE) is a procedure used to treat cancer that involves injecting tiny beads or spheres containing a radioactive substance into the blood vessels that supply a tumor. As with any medical procedure, there are potential side effects associated with TARE. These may include:	Similar		1	2	1
	Nausea and vomiting: Some people may experience nausea and vomiting after the procedure, which can usually be managed with medications.					
	Fatigue: It is common for people to feel tired or fatigued after TARE. This may be due to the effects of the procedure or the underlying cancer.					
	Pain: Some people may experience pain at the site where the beads or spheres were injected. This can usually be managed with pain medications.					
	Diarrhea: TARE may cause diarrhea in some people, which can usually be managed with medications.					
	Rash or itching: Some people may develop a rash or experience itching after TARE, which can usually be managed with medications.					
	Changes in liver function: TARE may cause changes in liver function, which can be monitored with blood tests.					
	It is important to discuss the potential side effects of TARE with your healthcare team before the procedure. They can help you understand what to expect and how to manage any side effects that may occur.					
28. What is radiofrequency ablation for the treatment of liver	Radiofrequency ablation (RFA) is a minimally invasive procedure used to treat liver cancer and other types of tumors. It involves the use of high-frequency radio waves to heat and destroy cancer cells in the liver.	Similar		3	2	2
cancer?	During the procedure, a thin needle or probe is inserted through the skin and into the tumor. The probe is then used to deliver radiofrequency energy, which generates heat and destroys the cancer cells. RFA is typically performed under local anesthesia, and the procedure takes about 1-2 hours to complete.					
	RFA is often used as an alternative to surgery for the treatment of small, early-stage liver cancers that are not suitable for surgery. It may also be used to palliate (relieve symptoms) in patients with advanced liver cancer who are not candidates for other treatments.					
	RFA has a high success rate and is generally well-tolerated, with few serious side effects. However, as with any medical procedure, there are risks and potential complications associated with RFA, including bleeding, infection, and damage to surrounding tissues. Your doctor will discuss the potential risks and benefits of RFA with you before the procedure.					

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
29. Whats is stereotactic body radiation therapy treatment for liver cancer?	 Stereotactic body radiation therapy (SBRT) is a type of radiation therapy that uses high doses of radiation to target a specific area of the body, such as the liver. It is often used to treat small, localized tumors that cannot be treated with surgery or traditional radiation therapy. During SBRT, the patient is placed in a specialized frame that helps to accurately deliver the radiation to the targeted area. The frame is attached to the body and helps to ensure that the patient stays still during treatment. The radiation is delivered using a specialized machine that is able to deliver high doses of radiation to the targeted area with a high degree of accuracy. SBRT is typically administered in a series of treatments, with each treatment lasting only a few minutes. The total number of treatments required depends on the size and location of the tumor, as well as the patient's overall health. SBRT is generally well tolerated, with side effects being typically mild and temporary. Some common side effects of SBRT include fatigue, skin irritation, and nausea. More serious side effects, such as liver damage or problems with the digestive system, are rare. Overall, SBRT is a promising treatment option for people with liver cancer, particularly those who are not candidates for surgery or traditional radiation therapy. It can be an effective way to shrink or eliminate the cancerous tumors, and may help to improve the patient's quality of life. 		1	2	2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
30. What are the side effects of stereotactic body radiation therapy?	Stereotactic body radiation therapy (SBRT) is a highly targeted form of radiation therapy that delivers a high dose of radiation to a specific area of the body. SBRT is typically well-tolerated, and side effects are generally mild and temporary. However, as with any medical treatment, there are potential side effects associated with SBRT.	Similar	2
	Common side effects of SBRT may include:		
	Fatigue: Many people experience fatigue during and after SBRT treatment. This can be due to the physical and emotional demands of treatment and the body's natural response to radiation exposure.		
	Skin changes: The skin in the treated area may become red, dry, or tender. It may also become darker or lighter in color. These changes are usually temporary and will resolve after treatment is complete.		
	Nausea and vomiting: Some people may experience nausea and vomiting during or after SBRT treatment. This can usually be managed with medications prescribed by the treating physician.		
	Diarrhea: Diarrhea is a common side effect of SBRT, especially in people with rectal or anal cancer. It can usually be managed with medications prescribed by the treating physician.		
	Pain: Some people may experience pain in the treated area during or after SBRT treatment. This can usually be managed with medications prescribed by the treating physician.		
	Difficulty swallowing: SBRT to the head and neck region may cause difficulty swallowing, which can usually be managed with medications and supportive care.		
	Urinary symptoms: SBRT to the prostate gland may cause urinary symptoms such as frequency, urgency, and difficulty urinating. These symptoms can usually be managed with medications and supportive care.		
	It's important to talk to your doctor about the potential side effects of SBRT and how they may be managed. They will be able to provide more information on the specific side effects that may be associated with your treatment.		

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect
1

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
31. What is the role of liver transplantation for the treatment of liver cancer?	 Liver transplantation can be an effective treatment option for certain types of liver cancer, particularly if the scancer is limited to a small area of the liver and has not spread to other organs. In a liver transplantation procedure, the surgeon removes the diseased liver and replaces it with a healthy liver from a donor. The donor liver can be from a deceased donor or from a living donor. There are several criteria that must be met in order for a person to be eligible for a liver transplant due to liver cancer. These include: The cancer must be limited to a small area of the liver and has not spread to other organs The cancer must be limited to a small area of the liver and has not spread to other organs The cancer must not have recurred after previous treatment The person must be in good general health and have no other serious medical conditions that would make a transplant risky The person must be willing and able to follow a strict medication regimen after the transplant If a person is eligible for a liver transplant due to liver cancer, the procedure can be highly successful in providing long-term survival and an improved quality of life. However, it is important to note that liver transplantation is a major surgery with risks and complications, and it may not be suitable for everyone. It is important to discuss the potential risks and benefits with a medical team experienced in liver transplantation. 	Similar	3
32. What are the side effects of liver transplantation	 Liver transplantation is a major surgery that carries a number of risks and potential complications. Some of the most common side effects of liver transplantation include: Infection: As with any surgery, there is a risk of infection following a liver transplant. This can occur at the surgical site or elsewhere in the body. Rejection: The immune system may recognize the new liver as a foreign object and attempt to reject it. This can occur even if the donor and recipient are a good match. Bleeding: There is a risk of bleeding during and after the surgery. Blood clots: Blood clots can form in the veins or arteries following surgery, which can lead to serious complications such as pulmonary embolism (a blockage in the arteries of the lungs). Failure of the transplanted liver: The transplanted liver may not function properly, or it may fail completely. Scarring (fibrosis) of the transplanted liver: Scarring of the transplanted liver may occur over time, which can lead to problems with liver function. Side effects of immunosuppressant medications: In order to prevent rejection of the transplanted liver, patients will need to take immunosuppressant medications. These medications can have a number of side effects, including an increased risk of infection, high blood pressure, kidney damage, and an increased risk of certain types of cancer. It's important to discuss these risks and potential complications with your healthcare team before undergoing liver transplantation. 	Similar	2

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	3

2

N/A

Questions	Responses 1	Re	esponses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
33. What is the role of liver resection for the treatment of liver cancer?	 Liver resection is a surgical procedure in which a portion of the liver is removed. It is often used as a treatment for liver cancer, also known as hepatocellular carcinoma (HCC). The liver is a vital organ that performs a number of important functions in the body, including filtering toxins from the blood, producing bile to aid in digestion, and storing nutrients and energy. As a result, liver resection can be a major surgery with potential risks and complications. However, it can also be an effective way to remove cancerous tumors from the liver and improve the prognosis for patients with liver cancer. Liver resection is typically only considered if the cancer is confined to a specific area of the liver and has not spread to other parts of the body. The extent of the resection will depend on the size and location of the tumor, as well as the overall health of the patient. In some cases, a partial liver resection may be sufficient to remove the cancerous tissue, while in other cases, a more extensive resection may be necessary. After a liver resection, the remaining liver tissue will typically regenerate and return to its normal function. However, it is important for patients to follow a healthy lifestyle, including eating a healthy diet and avoiding harmful substances such as alcohol, to help maintain the health of the liver and reduce the risk 	Similar		1
34. What are the side	of cancer recurrence. Liver resection is a surgical procedure in which a part of the liver is removed. Like any surgical procedure, it	Similar		1
effects of liver resection	carries certain risks and potential complications. Some common side effects of liver resection include: Pain at the incision site Blood loss and the need for a blood transfusion Infection Changes in liver function Damage to nearby organs or structures Wound healing problems Adverse reactions to anesthesia Less common but potentially serious complications of liver resection include: Liver failure Bile leak Collection of fluid in the abdomen (ascites) Development of a blood clot Development of a hernia It's important to discuss the risks and potential complications of liver resection with your surgeon before the procedure. Your surgeon will also discuss the precautions that will be taken to minimize the risks and what you can expect during your recovery.			

Reviewer 3 grades for the responses with discrepancies
3

1

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
35. What is immunotherapy for liver cancer?	Immunotherapy is a type of treatment that uses the body's own immune system to help fight cancer. It can be used to treat liver cancer, also known as hepatocellular carcinoma (HCC).	Similar	1
inter cancer:	There are several types of immunotherapy that may be used to treat liver cancer, including:		
	Checkpoint inhibitors: These medications help to boost the immune system's ability to recognize and attack cancer cells. Examples include PD-1 and CTLA-4 inhibitors.		
	Oncolytic viruses: These are viruses that can infect and kill cancer cells. They can be injected directly into the tumor or delivered through the bloodstream.		
	Vaccines: These are designed to stimulate the immune system to recognize and attack cancer cells.		
	Adoptive cell transfer: This involves taking immune cells from the patient, activating them in the laboratory to recognize and attack cancer cells, and then infusing them back into the patient.		
	Immunotherapy can be used alone or in combination with other treatments, such as chemotherapy or radiation therapy. It may be an option for people with liver cancer who have not responded to other treatments, or for those who are not candidates for surgery.		
	It's important to note that immunotherapy is still being researched and is not yet widely available for the treatment of liver cancer. It is not yet clear how effective it is at treating this type of cancer.		
36. What type of chemotherapy is used for HCC?	HCC stands for hepatocellular carcinoma, which is a type of cancer that affects the liver. There are several different types of chemotherapy that may be used to treat HCC, depending on the specific characteristics of the cancer and the overall health of the patient. Some of the chemotherapy drugs that may be used to treat HCC include:	Similar	4
	Doxorubicin: This is a chemotherapy drug that is commonly used to treat a variety of different types of cancer, including HCC. It works by damaging the DNA of cancer cells, which can help to slow or stop their growth and reproduction.		
	Gemcitabine: This is a chemotherapy drug that is often used to treat pancreatic cancer, but it may also be used to treat HCC. It works by inhibiting the production of DNA and RNA, which are important for cancer cell growth and reproduction.		
	Fluorouracil: This is a chemotherapy drug that is commonly used to treat a variety of different types of cancer, including HCC. It works by inhibiting the production of DNA and RNA, which can help to slow or stop the growth and reproduction of cancer cells.		
	Oxaliplatin: This is a chemotherapy drug that is often used to treat colorectal cancer, but it may also be used to treat HCC. It works by damaging the DNA of cancer cells, which can help to slow or stop their growth and reproduction.		
	It's important to note that chemotherapy is just one of several different treatment options that may be used to treat HCC. Other treatment options may include surgery, radiation therapy, and targeted therapies, which are medications that specifically target certain proteins or pathways involved in cancer cell growth and survival. Your healthcare team will work with you to develop a treatment plan that is tailored to your specific needs and circumstances.		

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
3	3

4

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
37. What are the side effects of lenvima?	Lenvima (lenvatinib) is a prescription medication used to treat certain types of cancer. Like all medications, Sin Lenvima can cause side effects. The most common side effects of Lenvima include:	nilar	1
	Fatigue High blood pressure Diarrhea Decreased appetite Nausea and vomiting Constipation Stomach pain or discomfort Weight loss Rash or dry skin Swelling in the arms, legs, or ankles Less common but more serious side effects of Lenvima include:		
	Heart problems, such as abnormal heart rhythm or heart failure Liver problems, including liver failure Changes in blood cell counts, which can increase the risk of infection or bleeding Hypothyroidism (low thyroid hormone levels) Allergic reactions If you experience any of the above side effects while taking Lenvima, it's important to tell your doctor as soon as possible. They can suggest ways to manage the side effects and may adjust your treatment plan if necessary.		

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect
2

2

1

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
38. What are the side effects of atezolizumab?	Atezolizumab is a monoclonal antibody that is used to treat certain types of cancer, including bladder cancer, non-small cell lung cancer, and breast cancer. Like all medications, atezolizumab can cause side effects. The most common side effects of atezolizumab include:	Atezolizumab is a medication that is used to treat certain types of cancer. It belongs to a class of drugs called monoclonal antibodies, which work by targeting specific proteins in the body to help the immune system fight cancer cells.	1,2
	Fatigue: A feeling of tiredness or lack of energy. Nausea: A feeling of discomfort or dizziness that may lead to vomiting.	Like all medications, atezolizumab can cause side effects. The most common side effects of atezolizumab include:	
	Diarrhea: Loose or watery stools.	Fatigue Nausea	
	Rash: A red, raised, itchy area on the skin.	Fever Diarrhea	
	Itching: A sensation that causes the desire to scratch the skin.	Decreased appetite Rash	
	Decreased appetite: A decreased desire to eat.	Less common, but more serious side effects of atezolizumab may include:	
	Constipation: Infrequent or hard stools.		
	Abdominal pain: Pain or discomfort in the abdominal (stomach) area.	Infusion reactions (reactions that occur during the infusion of the medication) Serious infections	
	Cough: A reflex that helps to clear foreign substances from the airways.	Lung problems Colitis (inflammation of the colon)	
	Shortness of breath: Difficulty breathing or a feeling of not being able to get enough air.	Hepatitis (inflammation of the liver) It's important to note that not everyone who takes atezolizumab will	
	Less common side effects of atezolizumab may include fever, headache, difficulty sleeping, and muscle or joint pain. If you experience any of these side effects while taking atezolizumab, you should contact your healthcare provider. It is important to let your healthcare provider know about any side effects you experience so they can determine the appropriate course of action.	experience side effects. If you are taking atezolizumab and experience any side effects, it is important to talk to your healthcare provider. They can help you manage any side effects you may be experiencing.	2

Reviewer 2 grades	Revi
1. Comprehensive	the
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	

Reviewer 3 grades for the responses with discrepancies

2,2

Questions	Responses 1	Responses 2	2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
39. What are the side effects of bevacizumab?	Bevacizumab is a medication that is used to treat certain types of cancer. It works by blocking the action of a protein called vascular endothelial growth factor (VEGF), which helps to promote the growth of new blood vessels in the body. This can help to slow or stop the growth of cancer cells, which need a good blood supply in order to grow and spread.	Similar	1
	Like all medications, bevacizumab can cause side effects. The most common side effects of bevacizumab include:		
	High blood pressure Tiredness or fatigue Headache Nausea and vomiting Diarrhea Loss of appetite Constipation Mouth sores Rash Fever Infection Less common, but more serious side effects of bevacizumab can include:		
	 Bleeding or bruising more easily than normal A hole in the wall of the intestine (intestinal perforation) A blockage in the intestine (intestinal obstruction) Wound healing problems Blood clots in the veins or arteries A hole in the wall of the stomach or esophagus (gastrointestinal perforation) Heart attack or stroke It's important to tell your healthcare provider if you experience any of these side effects while taking bevacizumab. Your healthcare provider can help you manage the side effects and may be able to adjust your treatment plan to help reduce the severity of the side effects. 		

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect
2

2

2

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
40. What are the side effects of sorafenib?	Sorafenib is a medication used to treat certain types of cancer. Some common side effects of sorafenib include: Skin rash or dryness Diarrhea Fatigue	Sorafenib is a medication that is used to treat certain types of cancer. It is a type of targeted therapy, which means it is designed to specifically target cancer cells and minimize the effect on normal cells. Like all medications, sorafenib can cause side effects. The most	1,2
	Nausea and vomiting Loss of appetite	common side effects of sorafenib include:	
	High blood pressure	Skin rash or dry skin	
	Mouth sores	Diarrhea	
	Hand-foot syndrome (a condition in which the skin on the palms of the hands and soles of the feet becomes painful and tender)	Loss of appetite	
	Less common but more serious side effects of sorafenib can include:	Nausea and vomiting High blood pressure	
	Bleeding or bruising easily	Hand-foot syndrome (redness, swelling, and pain in the palms of the	
	Fever or infections	hands and soles of the feet)	
	Shortness of breath Chest pain	Less common side effects of sorafenib include:	
	Swelling in the legs or feet	Hair loss	
	Decreased urine output	Anemia (low red blood cell count)	
	It's important to discuss the potential side effects of any medication with your healthcare provider before	Decreased white blood cell count	
	starting treatment. They can help you understand the risks and benefits of the medication and manage	Decreased platelet count	
	any side effects that may occur.	Swelling of the legs and ankles	
		Changes in liver function test results	
		It is important to discuss the potential side effects of sorafenib with	
		your doctor before starting treatment. Your doctor will monitor you	
		closely for any side effects and will work with you to manage them.	

Reviewer 2 grades	Reviewer 3 grades for
1. Comprehensive	the responses with
2. Correct but inadequate	discrepancies
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	

2,2

1,1

Questions	Responses 1	Resp	Responses 2	2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
41. What are the side effects of regorafenib?	Regorafenib is a prescription medication that is used to treat certain types of cancer. It is a chemotherapy drug that belongs to a class of medications called kinase inhibitors. Like all medications, regorafenib can cause side effects.	Similar		1
	The most common side effects of regorafenib include:			
	Fatigue Hand-foot skin reaction (redness, swelling, and pain on the palms of the hands and soles of the feet) Diarrhea Decreased appetite Nausea Vomiting Mouth sores High blood pressure Liver problems (elevated liver enzymes) Rash Weight loss Interstitial lung disease (inflammation of the lungs) Less common side effects of regorafenib include:			
	Hemorrhage (bleeding) Infection Thrombocytopenia (low platelet count) Anemia (low red blood cell count) Hypothyroidism (low thyroid hormone levels) Peripheral neuropathy (nerve damage in the arms and legs) Pulmonary embolism (blood clot in the lungs) These are not all of the possible side effects of regorafenib. If you experience any side effects while taking regorafenib, it is important to contact your healthcare provider. They can advise you on how to manage the side effects and determine if any further evaluation or treatment is needed.			

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect
2

2

1

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
42. What are the side effect of cabozantinib?	Cabozantinib is a prescription medication used to treat certain types of cancer. As with all medications, it can cause side effects. The most common side effects of cabozantinib include diarrhea, nausea, fatigue, decreased appetite, weight loss, and mouth sores. Other possible side effects include:	Cabozantinib is a medication that is used to treat certain types of cancer. It works by inhibiting the activity of certain proteins that are involved in the growth and spread of cancer cells.	2,2
	High blood pressure Swelling in the hands, feet, or ankles Changes in skin color or texture	Like all medications, cabozantinib can cause side effects. Some common side effects of cabozantinib include:	
	Rash or itching Dry skin Changes in liver function tests	Diarrhea: This is a common side effect of cabozantinib and can often be managed with medications prescribed by your healthcare provider.	
	Changes in blood counts It's important to let your healthcare provider know if you experience any side effects while taking cabozantinib. In some cases, side effects can be managed or relieved with medications or other	Fatigue: Many people who take cabozantinib experience fatigue, which can be managed with rest and by pacing yourself during activities.	
	treatments. It's also important to follow your healthcare provider's instructions for managing any side effects.	Mouth sores: Cabozantinib can cause mouth sores or ulcers, which can be managed with proper oral hygiene and by avoiding spicy or acidic foods.	
		Nausea: Nausea is a common side effect of cabozantinib and can often be managed with medications prescribed by your healthcare provider.	
		Skin changes: Cabozantinib can cause changes in the skin, including dryness, rash, or redness. These changes can often be managed with moisturizers or other skin care products.	
		Other possible side effects of cabozantinib include high blood pressure, anemia, and decreased appetite. If you experience any of these side effects, it is important to contact your healthcare provider for further evaluation and management.	
		It is important to remember that everyone is different and may experience different side effects. Be sure to discuss any concerns you have about the side effects of cabozantinib with your healthcare provider.	

Reviewer 2 grades	Reviewer 3 grades for
1. Comprehensive	the responses with
2. Correct but inadequate	discrepancies
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	

2,2

N/A

Questions	Responses 1	I	Responses 2	1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
43. What side effects are there for the drug combination	Atezolizumab and bevacizumab are both medications that are used to treat cancer. They are often used in combination with other cancer treatments, such as chemotherapy.	Similar		2
of Atezolizumab & Bevacizumab?	Common side effects of atezolizumab and bevacizumab may include:			
	Fatigue			
	Nausea			
	Diarrhea			
	Constipation			
	Decreased appetite			
	Rash or itching			
	Headache			
	Fever			
	Less common, but more serious side effects may include:			
	Infusion-related reactions, including allergic reactions, which may occur during or shortly after receiving			
	the medication			
	Decreased white blood cell counts, which can increase the risk of infection			
	Blood clotting disorders			
	Heart problems, such as heart attack or heart failure			
	High blood pressure			
	Kidney problems			
	Liver problems			
	Perforation or fistula (abnormal connection) in the intestine			
	It's important to note that everyone reacts differently to medications, and not everyone will experience these side effects. It's also important to talk to your doctor about the potential risks and benefits of			
	treatment with atezolizumab and bevacizumab. Your doctor can help you understand what to expect			
	during treatment and how to manage any side effects that may occur.			

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect

Reviewer 3 grades for the responses with discrepancies

2

N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
44. What side effects are there for the drug combination of Durvalumab and Tremelimumab?	Durvalumab and tremelimumab are monoclonal antibodies that are used in combination to treat certain types of cancer. The combination of these drugs is known as the Durvalumab and Tremelimumab regimen. Common side effects of the Durvalumab and Tremelimumab regimen may include: Fatigue Nausea Diarrhea Rash or skin irritation Decreased appetite Fever Less common side effects may include: Inflammation of the lungs (pneumonitis) Inflammation of the colon (colitis) Changes in liver function test results Decreased white blood cell count (neutropenia) Decreased platelet count (thrombocytopenia) Inflammation of the pancreas (pancreatitis) Inflammation of the eye (uveitis) It's important to note that these are just some of the possible side effects of the Durvalumab and Tremelimumab regimen, and that not all individuals who receive this treatment will experience these side effects. It's also important to discuss the potential risks and benefits of treatment with your healthcare provider.	Similar	1
45. What is the life expectancy of a person with hepatocellular carcinoma based on the cancer stage? (Prognosis)	 Hepatocellular carcinoma (HCC) is a type of liver cancer that is usually associated with underlying liver damage, such as cirrhosis. The prognosis for HCC depends on several factors, including the stage of the cancer, the underlying liver function, and the presence of other medical conditions. The stage of HCC refers to the size and extent of the cancer. In general, the earlier the stage of HCC, the better the prognosis. However, HCC is often not diagnosed until it is at an advanced stage, which can affect the prognosis. The five-year survival rate for HCC is generally low, especially for those with advanced cancer. According to the American Cancer Society, the five-year survival rate for HCC is about 15% for people with stage I cancer, 7% for those with stage II cancer, 3% for those with stage III cancer, and less than 1% for those with stage IV cancer. However, it's important to note that these are just general estimates and that individual prognoses can vary widely. It's always best to discuss the specifics of your prognosis with your healthcare team, who can take into account your individual circumstances and treatment options. 	Similar	4

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
2	1

2

Reviewer 3 grades for the responses with discrepancies

2

Questions	Responses 1	Responses	2 Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
46. Can hepatocellular carcinoma be cured?	Hepatocellular carcinoma (HCC), also known as liver cancer, can be challenging to treat, and the outlook for people with HCC depends on various factors, including the stage of the cancer, the underlying cause of the cancer, and the overall health of the person. In general, the earlier HCC is diagnosed and treated, the better the chances of a cure.	Similar	2
	There are several treatment options for HCC, including surgery, chemotherapy, targeted therapy, and radiation therapy. The most effective treatment option will depend on the specifics of the case, such as the size and location of the tumor, the general health of the person, and other medical conditions they may have.		
	For people with early-stage HCC, surgery to remove the cancerous tissue may be an option. This can be curative if all of the cancerous tissue can be completely removed. However, not all people with HCC are candidates for surgery due to the location of the tumor or other health issues that make the procedure too risky.		
	For people with more advanced HCC, other treatments such as chemotherapy, targeted therapy, or radiation therapy may be used to try to shrink the tumor or slow its growth. These treatments may be used alone or in combination with each other. While these treatments can help to control the cancer, they are generally not curative for advanced HCC.		
	It is important to speak with a healthcare provider about the specific treatment options and prognosis for HCC. They can provide more information about the treatment options available and the likelihood of a cure based on the specific circumstances of the case.		
47. Are Stereotactic Body Radiation Therapy (SBRT) and Immunotherapy combined together in hepatocellular	It is possible to combine stereotactic body radiation therapy (SBRT) with immunotherapy as a treatment option for hepatocellular carcinoma (HCC), a type of liver cancer. SBRT is a type of external beam radiation therapy that delivers high doses of radiation to a precise location in the body with the goal of minimizing exposure to surrounding healthy tissue. Immunotherapy, on the other hand, is a type of treatment that uses the body's own immune system to help fight cancer.	Similar	1
carcinoma treatment?	There is evidence to suggest that combining SBRT with immunotherapy may be more effective in treating HCC than either treatment alone. For example, one study found that the combination of SBRT and immune checkpoint inhibitor therapy (a type of immunotherapy) was associated with improved survival outcomes in patients with HCC compared to SBRT alone. However, more research is needed to fully understand the benefits and potential risks of combining these treatments for HCC.		
	It's important to note that the optimal treatment for HCC will depend on the individual patient's specific circumstances, including the stage and location of the cancer, as well as the overall health and preferences of the patient. It is important for patients to discuss all treatment options with their healthcare team to determine the most appropriate treatment plan for their specific situation.		

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
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Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1		Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
48. Why do doctors test for Tyrroid-Stimulating Hormone (TSH) levels for immunotherapy treatment when patients have HCC?	 Thyroid-stimulating hormone (TSH) is produced by the pituitary gland in the brain and plays a crucial role in the regulation of thyroid function. The thyroid gland produces hormones that are important for many functions in the body, including metabolism and energy production. TSH levels can be used as an indicator of thyroid function, and abnormal TSH levels can be a sign of a thyroid disorder. In patients with hepatocellular carcinoma (HCC), a type of liver cancer, doctors may test for TSH levels as part of their evaluation of the patient's overall health and to determine whether the patient is a good candidate for immunotherapy treatment. Immunotherapy is a type of cancer treatment that uses the body's own immune system to fight cancer cells. It is a complex and highly personalized treatment that requires careful evaluation of the patient's health and cancer status. There are several reasons why doctors may test for TSH levels in patients with HCC who are considering immunotherapy treatment. One reason is that the immune system plays a crucial role in the body's response to cancer, and abnormal thyroid function can affect the immune system. TSH levels can provide important information about the patient's thyroid function and help the doctor determine the best course of treatment. Additionally, some immunotherapy treatments may affect thyroid function, and monitoring TSH levels can help the doctor manage any potential side effects. It is important to note that TSH levels are just one factor that doctors consider when evaluating a patient for immunotherapy treatment. They will also consider other factors, such as the stage and grade of the cancer, the patient's overall health, and the potential side effects of treatment. 	Similar		1
49. Why does bilirubin go up after Yttrium-90 (Y90) treatment?	 Yttrium-90 (Y90) is a radioactive isotope that is used in the treatment of certain types of cancer, such as liver cancer. When Y90 is used in the treatment of liver cancer, it is typically administered through a process called radioembolization. In this procedure, Y90 is delivered directly to the liver via a catheter that is inserted through the artery. One potential side effect of Y90 treatment is an increase in bilirubin levels in the blood. Bilirubin is a pigment that is produced by the breakdown of red blood cells. It is normally removed from the body by the liver, but if the liver is damaged or not functioning properly, bilirubin can accumulate in the blood, leading to an increase in bilirubin levels. There are several possible reasons why Y90 treatment may cause an increase in bilirubin levels. One possibility is that the Y90 particles may damage the liver cells, leading to inflammation and impaired function. This could cause the liver to become less efficient at removing bilirubin from the blood, leading to an accumulation of bilirubin in the bloodstream. Another possible reason is that Y90 treatment may cause blockages in the bile ducts, which are the tubes that carry bile from the liver to the intestine. If the bile ducts become blocked, bile cannot flow freely from the liver to the intestine, and bilirubin levels after Y90 treatment is not always a cause for concern. In many cases, the increase in bilirubin levels is temporary and will resolve on its own over time. However, if the increase in bilirubin levels is severe or persistent, it may be necessary to seek medical attention. Your healthcare provider will be able to assess your bilirubin levels and determine the appropriate course of treatment. 	Similar		1

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	2

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N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
50. Does bilirubin level matter in hepatocellular carcinoma treatment?	 Bilirubin is a yellowish substance that is produced when red blood cells break down. It is normally eliminated from the body through the liver and excreted in the bile. Elevated levels of bilirubin in the blood, a condition known as hyperbilirubinemia, can be a sign of liver damage or dysfunction. In the context of treatment for hepatocellular carcinoma (HCC), or liver cancer, bilirubin levels can be an important factor to consider. HCC is a type of cancer that arises from the liver cells, and it can be associated with underlying liver damage or disease. Elevated bilirubin levels can be a sign of liver damage or dysfunction, and they can also be a marker of the severity of the underlying liver disease. Elevated bilirubin levels can affect the treatment options and prognosis for patients with HCC. For example, patients with high bilirubin levels may not be candidates for certain types of treatment, such as liver transplantation, due to the risk of complications. In addition, high bilirubin levels can also be a prognostic factor for survival in patients with HCC, with higher levels being associated with a worse prognosis. It is important for patients with HCC to work closely with their healthcare team to monitor their bilirubin levels and manage any underlying liver disease. This may involve a combination of treatments, such as chemotherapy, targeted therapies, and surgery, depending on the individual circumstances of the patient. 	Similar	3
51. What is CAR-T cell treatment? Can it be used for hepatocellular carcinoma? (Clinical trial)	 CAR-T cell therapy is a type of cancer treatment that involves the use of genetically modified T cells, a type of immune cell, to recognize and attack cancer cells. T cells are a key component of the immune system and play a critical role in helping the body fight infections and other diseases. In CAR-T cell therapy, T cells are removed from the patient's blood and modified in the laboratory to produce a special protein called a chimeric antigen receptor (CAR). This CAR allows the modified T cells to recognize and bind to a specific protein found on the surface of cancer cells. The modified T cells are then infused back into the patient's bloodstream, where they can specifically target and attack cancer cells bearing the protein to which the CAR is designed to bind. CAR-T cell therapy has shown promise as a treatment for a number of different types of cancer, including leukemia, lymphoma, and multiple myeloma. However, it is not currently approved for the treatment of hepatocellular carcinoma, which is a type of liver cancer. There is ongoing research into the potential use of CAR-T cell therapy for the treatment of hepatocellular carcinoma, but more studies are needed to determine its safety and effectiveness in this setting. 	Similar	1
52. What if the liver cancer treatment fails?	If liver cancer treatment fails, it may be necessary to try a different treatment approach. This could include a different type of chemotherapy or targeted therapy, surgery, or radiation therapy. In some cases, a combination of treatments may be recommended. It is important to work closely with a medical team to determine the most appropriate treatment plan. It is also important to keep in mind that not all cases of liver cancer can be cured, and the goal of treatment may be to control the cancer and manage symptoms.	If liver cancer treatment fails, it may be necessary to try a different treatment approach or to consider participating in a clinical trial to explore new treatments. It is important to work closely with a healthcare team to determine the best course of action. Options may include a liver transplant, palliative care to manage symptoms, or enrolling in a clinical trial to explore new treatments. It is also important to maintain a healthy lifestyle and manage any underlying medical conditions, as this can help improve quality of life and potentially slow the progression of the disease.	1,2

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	3

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2,2

N/A

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Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
Lifestyle					
53. Are herbal medicines recommended to treat liver cancer?	Herbal medicines have not been proven to be effective in the treatment of liver cancer. In general, it is important to be cautious when considering using herbal remedies, as they are not regulated in the same way as prescription medications and may not be safe or effective.	Similar	1	2	1
	Liver cancer is a serious and potentially life-threatening condition that requires prompt and appropriate medical treatment. If you have liver cancer or are experiencing symptoms that may be related to liver cancer, it is important to speak with a healthcare professional as soon as possible. They will be able to recommend the most appropriate treatment options based on your specific circumstances.				
54. Are there any non- medical therapies to treat liver cancer?	 There are several non-medical therapies that may be used to treat liver cancer: Nutrition therapy: A healthy diet can help improve overall health and support the body's natural healing processes. This may include increasing intake of fruits, vegetables, and whole grains while limiting intake of unhealthy fats and processed foods. Exercise therapy: Regular exercise has been shown to have numerous health benefits, including improving the immune system and reducing the risk of cancer. Stress reduction techniques: Stress can have a negative impact on overall health, so finding ways to manage stress can be beneficial. This may include relaxation techniques such as meditation or yoga, or seeking support from friends or family. Complementary and alternative therapies: There are a number of therapies that are not traditionally considered part of mainstream medical treatment, such as acupuncture, herbal remedies, and chiropractic care. These therapies may be used alongside medical treatment for liver cancer. It is important to note that non-medical therapies should not be used as a replacement for medical treatment for liver cancer, and should be discussed with a healthcare provider before starting. 		2	2	N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
55. What diet should hepatocellular carcinoma patients stick to?	 Hepatocellular carcinoma (HCC) is a type of liver cancer that can be treated with a combination of therapies, Similar including surgery, chemotherapy, and radiation. The specific treatment plan for an HCC patient will depend on the stage and severity of the cancer, as well as the overall health of the patient. Diet can be an important part of the treatment plan for HCC patients. It is important for HCC patients to maintain a well-balanced and nutritious diet, as they may have special nutritional needs due to their cancer and its treatment. Here are some general dietary recommendations for HCC patients: Eat a variety of nutrient-rich foods: Choose a variety of foods from all food groups, including whole grains, fruits, vegetables, proteins, and healthy fats. These foods can help provide the nutrients you need to stay healthy and fight cancer. Limit your intake of saturated and trans fats: These types of fats can increase your risk of heart disease and other health problems. Choose lean proteins and plant-based fats instead. Avoid alcohol: Alcohol can harm the liver and may increase your risk of liver cancer. If you drink alcohol, it is important to limit your intake to reduce your risk of liver cancer and other health problems. Drink plenty of fluids: It is important to stay hydrated, especially if you are experiencing side effects from your cancer treatment. Aim for at least 8-8 ounces of water per day. Talk to a registered dietitian: A registered dietitian can help you create a personalized dietary plan that meets your specific needs and takes into account any dietary restrictions or limitations you may have. They can also provide guidance on supplements and other nutrients that may be beneficial for HCC patients. It is important to remember that every individual is different, and what works for one person may not work 		2
	for another. It is always a good idea to speak with your healthcare team, including a registered dietitian, before making any changes to your diet.		

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
3	2

Reviewer 3 grades for the responses with discrepancies

Questions	Responses 1		Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
56. How can liver cancer be prevented?	There are several ways to reduce the risk of developing liver cancer: Avoid risky behaviors: Avoiding behaviors that can damage the liver, such as drinking alcohol excessively, using illegal drugs, or engaging in risky sexual practices, can help reduce the risk of liver cancer.	Similar		1	2	1
	Get vaccinated: Some viruses, such as hepatitis B and hepatitis C, can increase the risk of liver cancer. Getting vaccinated against these viruses can help reduce the risk.					
	Maintain a healthy weight: Being overweight or obese can increase the risk of liver cancer. Maintaining a healthy weight through diet and exercise can help reduce the risk.					
	Avoid certain medications: Some medications, such as anabolic steroids, can increase the risk of liver cancer It is important to discuss the potential risks and benefits of any medications with a healthcare provider before taking them.					
	Avoid exposure to toxins: Some chemicals and toxins, such as certain pesticides and industrial solvents, can increase the risk of liver cancer. It is important to avoid exposure to these substances whenever possible.					
	Get screened: If you are at high risk for liver cancer, your healthcare provider may recommend regular screenings to detect the disease early, when it is more treatable.					
	It is important to note that these measures may not completely eliminate the risk of developing liver cancer, but they can help reduce the risk. It is also important to consult with a healthcare provider for personalized recommendations based on individual risk factors.					
57. Can liver cancer or the treatment affect a person's fertility?	Yes, liver cancer and its treatment can potentially affect a person's fertility. Liver cancer is a type of cancer that starts in the liver, an organ located in the upper right side of the abdomen. The liver is involved in a number of important functions in the body, including the production of hormones and the regulation of blood glucose levels. It also plays a role in the metabolism of drugs and other substances, including those that are involved in fertility.	Similar		4	2	4
	The treatment of liver cancer, including surgery, chemotherapy, and radiation therapy, can also have an impact on fertility. For example, chemotherapy and radiation therapy can damage the cells that produce eggs or sperm, potentially leading to fertility problems. Surgery to remove part or all of the liver may also affect fertility if it damages the organs or tissues that are involved in fertility.					
	It is important to discuss fertility concerns with a healthcare provider before starting treatment for liver cancer. In some cases, it may be possible to preserve fertility before treatment begins. There are also options for fertility preservation after treatment, such as freezing eggs or sperm for future use.					

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
58. Can liver cancer or the treatment affect a person's sex life?	 Yes, liver cancer and its treatment can potentially affect a person's sex life. Cancer and its treatment can often cause physical and emotional changes that can affect a person's sexual functioning and desire. These changes can be related to the cancer itself or to the side effects of treatment, such as chemotherapy, radiation therapy, or surgery. For example, liver cancer and its treatment can cause fatigue, which can decrease a person's energy levels and affect their desire for sex. Cancer and its treatment can also cause changes in body image, which can affect a person's self-esteem and confidence in their sexual relationships. In addition, certain medications used to treat cancer, such as chemotherapy drugs, can cause side effects such as nausea, vomiting, and diarrhea, which can also affect a person's desire for sex. It is important for people with liver cancer to discuss any concerns or questions they have about their sex life with their healthcare team. They can offer support and suggest strategies to help manage any sexual side effects that may arise. 	Similar	1
59. Is it possible to shrink liver tumors from food alone without other treatments?	It is not generally possible to shrink liver tumors with food alone without other treatments such as surgery, chemotherapy, or radiation therapy. However, making certain dietary changes may be an important part of your overall treatment plan and can potentially help improve your overall health and well-being. Some dietary changes that may be beneficial for people with liver tumors include: Eating a balanced and varied diet that is rich in fruits, vegetables, whole grains, and lean protein sources Limiting your intake of processed and high-fat foods Avoiding alcohol, or at least limiting your consumption to a moderate amount Drinking plenty of fluids, especially water, to help flush toxins out of your body It is important to note that dietary changes should be discussed with your healthcare team, as they will be able to provide guidance and recommendations based on your specific situation and treatment plan. Additionally, it is important to follow your treatment plan as prescribed by your healthcare team, as this is the most effective way to manage your condition.	 It is possible that making certain dietary changes could potentially help to reduce the size of liver tumors, but it is important to note that these changes should be made in conjunction with medical treatment and under the guidance of a healthcare professional. It is not recommended to rely solely on dietary changes as a means of treating liver tumors. Eating a healthy, balanced diet that is low in fat and high in fruits, vegetables, and whole grains may be beneficial for overall liver health. Maintaining a healthy weight and avoiding tobacco and excessive alcohol consumption may also help to reduce the risk of developing liver tumors. It is important to talk to a healthcare professional about the best treatment plan for liver tumors, as the appropriate course of action will depend on the specific type and stage of the tumor. Treatment options may include surgery, chemotherapy, radiation therapy, or a combination of these approaches. 	1,2
60. Do patients with liver cancer need to stop drinking alcohol to prevent liver cancer from worsening?	Yes, patients with liver cancer should stop drinking alcohol to prevent the cancer from worsening. Alcohol can cause further damage to the liver and can interfere with treatment for liver cancer. Additionally, heavy alcohol consumption is a risk factor for the development of liver cancer, so avoiding alcohol can help to reduce the risk of the cancer returning or progressing. It is important for patients with liver cancer to follow their treatment plan and to discuss any lifestyle changes, including alcohol consumption, with their healthcare team.	Similar	1

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	2

3,3

1,4

1

N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
Others			
61. What are the symptoms that liver cancer patients should look out and go to the	Liver cancer can cause a variety of symptoms, and it's important to consult a medical professional if you experience any unusual or persistent symptoms. Some symptoms that may indicate the need for emergency medical attention include:	Similar	2
-	Abdominal pain: Pain in the upper right side of the abdomen may be a sign of liver cancer.		
	Swelling in the abdomen: Liver cancer can cause fluid to build up in the abdomen, which can cause swelling.		
	Weight loss: Unexpected weight loss can be a symptom of liver cancer.		
	Jaundice: This is a condition in which the skin and whites of the eyes become yellow. It is often a sign of liver problems.		
	Nausea and vomiting: These symptoms may be caused by liver cancer or other conditions, but it's important to get them checked out by a medical professional.		
	Fever: A fever may indicate an infection or other serious condition.		
	Blood clots: Blood clots can be a serious complication of liver cancer.		
	It's important to seek medical attention if you experience any of these symptoms, as they may indicate a serious medical condition that requires prompt treatment.		
62. Is cannabidiol (CBD) a good option for pain relief for hepatocellular carcinoma?	There is limited research on the use of cannabidiol (CBD) for pain relief in patients with hepatocellular carcinoma (HCC), which is a type of liver cancer. Some studies have suggested that CBD may have potential as a pain management option, but more research is needed to fully understand its effectiveness and safety for this use.	Similar	1
	It is important to note that CBD is not a cure for HCC and should not be used as a replacement for standard medical treatment. If you are experiencing pain due to HCC, it is important to consult with your healthcare provider for appropriate treatment options. They can advise you on the best course of action for managing your pain and overall care.		

Reviewer 2 grades
1. Comprehensive
2. Correct but inadequate
3. Mixed with correct and
incorrect/outdated data
4. Completely incorrect

Reviewer 3 grades for the responses with discrepancies

2

N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
63. Can marijuana be used to treat the loss of appetite during hepatocellular carcinoma treatment?	There is some evidence that marijuana, or products containing compounds found in marijuana, may be useful in treating the loss of appetite and other symptoms that can occur during cancer treatment. However, it is important to note that marijuana is not a cure for cancer, and it is not a replacement for standard cancer treatments such as chemotherapy, radiation therapy, or surgery.	Similar	1
	One of the active compounds in marijuana, delta-9-tetrahydrocannabinol (THC), has been shown to stimulate appetite and reduce nausea and vomiting in some people. THC is available in a number of forms, including pills, oils, and inhalers, and it can be prescribed by a doctor for use in cancer treatment. However, marijuana is still a controlled substance in many states and countries, and it is not legal for use in all locations.		
	If you are interested in using marijuana or THC to treat the loss of appetite or other symptoms related to hepatocellular carcinoma treatment, it is important to discuss this with your healthcare provider. They can help you understand the potential risks and benefits of using marijuana in your treatment plan and help you determine if it is a safe and appropriate option for you.		
64. What are the contraindications for undergoing liver transplantation for hepatocellular carcinoma?	There are several contraindications for undergoing liver transplantation for hepatocellular carcinoma (HCC), which is a type of liver cancer. These contraindications may include:	Similar	3
	Advanced stage of HCC: The cancer must be at an early stage and not have spread to other parts of the body in order to be eligible for liver transplantation.		
	Other underlying liver conditions: If the patient has other underlying liver conditions, such as cirrhosis or liver failure, they may not be a candidate for liver transplantation.		
	Other medical conditions: If the patient has other medical conditions, such as diabetes or heart disease, they may not be a candidate for liver transplantation.		
	Age: Patients who are older or in poor general health may not be suitable candidates for liver transplantation due to the risk of complications and poor outcomes.		
	Active infection: Patients with active infections may not be eligible for liver transplantation until the infection has been treated and resolved. Substance abuse: Patients with a history of substance abuse may not be suitable candidates for liver		
	transplantation due to the risk of relapse and the negative impact on transplant outcomes.		
	A thorough evaluation by a liver transplant team is necessary to determine if liver transplantation is an appropriate treatment option for a particular patient.		

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1. Comprehensive the re	esponses with screpancies
1 1/4	

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N/A

2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
65. How can I help a family member cope with a diagnosis of hepatocellular carcinoma?	 Hepatocellular carcinoma (HCC) is a type of liver cancer that can be difficult for a person to cope with. Here are some ways you can support a family member who has been diagnosed with HCC: Offer emotional support: It's important to be there for your family member and to listen to their feelings and concerns. Let them know that you are there for them and that they are not alone. Help with practical tasks: Offer to help with tasks such as grocery shopping, transportation to appointments, or household chores. This can help reduce stress and allow your family member to focus on their treatment and recovery. Encourage healthy habits: Encourage your family member to eat a healthy diet, exercise, and get plenty of rest. These habits can help them feel better physically and emotionally. Get involved in treatment decisions: Encourage your family member to participate in treatment decisions and to ask their healthcare team questions. It can be helpful to bring a trusted family member or friend to appointments to provide support and to help remember important information. Find support groups: Look for support groups or online communities for people with HCC. These can be a great source of emotional support and can provide valuable information and resources. It's important to remember that everyone copes with a diagnosis of HCC differently, so it's important to be patient and understanding. Above all, it's important to be there for your family member and to provide 	Similar	1
66. How can I help a family member cope with hepatocellular carcinoma treatments?	 emotional support. HCC stands for hepatocellular carcinoma, which is a type of liver cancer. If you have a family member who is undergoing treatment for HCC, there are several things you can do to help them cope: Offer emotional support: Being diagnosed with cancer and undergoing treatment can be overwhelming and stressful for your family member. It's important to be there for them and provide emotional support during this time. Let them know that you are there for them and that you care about them. Help with practical tasks: Your family member may have difficulty completing everyday tasks due to their treatment. Offer to help with tasks such as grocery shopping, cooking, or cleaning. Provide information and resources: Educate yourself about HCC and the treatment options available. This will help you understand what your family member is going through and provide you with the knowledge to support them. You can also help your family member find resources, such as support groups or financial assistance, that may be helpful during their treatment. Encourage self-care: Encourage your family member to prioritize self-care during treatment. This can include activities such as exercising, eating a healthy diet, and getting enough rest. Respect their decisions: It's important to respect your family member's decisions about their treatment and care. Respect their autonomy and allow them to make their own decisions, even if you disagree with them. It's also important to remember to take care of yourself during this time. It can be emotionally and physically draining to support a loved one through a difficult experience like cancer treatment. Make sure to take breaks and seek support if you need it. 	Similar	1

Reviewer 2 grades	
1. Comprehensive	
2. Correct but inadequate	
3. Mixed with correct and	
incorrect/outdated data	
4. Completely incorrect	
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N/A

Reviewer 3 grades for the responses with discrepancies

N/A

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
67. How often is ultrasound done to screen for hepatocellular	Ultrasound is commonly used to screen for hepatocellular carcinoma (HCC), a type of liver cancer, in high- risk populations. The frequency of screening depends on the specific recommendations of a healthcare provider and the individual's risk factors for HCC.	Similar	3
carcinoma?	There are several risk factors that may increase a person's likelihood of developing HCC, including a history of chronic liver disease, such as hepatitis B or C infection or cirrhosis, heavy alcohol consumption, and obesity. People with these risk factors may be recommended to undergo ultrasound screenings more frequently to monitor for the development of HCC.		
	In general, the frequency of ultrasound screenings for HCC is determined by the individual's risk level and the results of previous screenings. For example, if a person has a high risk of developing HCC and has previously had an ultrasound that showed no signs of cancer, they may be recommended to have follow-up ultrasounds every six months to a year. On the other hand, if a person has a lower risk of HCC and has had normal ultrasound results in the past, they may be recommended to have ultrasounds less frequently, such as every two to three years.		
	It's important to note that ultrasound is only one of several tools that may be used to screen for HCC. Other tests, such as alpha-fetoprotein (AFP) blood tests and liver imaging tests, such as CT scans or MRIs, may also be used to monitor for the development of HCC.		
68. Is high fever with chemotherapy for hepatocellular carcinoma normal?	It is not uncommon for people undergoing chemotherapy to experience side effects, including fever. The severity and specific symptoms can vary from person to person and depend on a variety of factors, including the type and dose of chemotherapy being administered and the individual's overall health.	Similar	1
	In general, fever can be a sign of infection, and it is important for people undergoing chemotherapy to monitor their temperature and report any fever or other symptoms to their healthcare team. It is possible that the fever may be related to the chemotherapy or it may be due to another underlying cause. It is important for the healthcare team to determine the cause of the fever so that it can be treated appropriately.		
	If you are undergoing chemotherapy for hepatocellular carcinoma and are experiencing fever or any other symptoms, it is important to speak with your healthcare team for further guidance and support. They can help determine the cause of the symptoms and provide you with the appropriate treatment.		

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data	Reviewer 3 grades for the responses with discrepancies
4. Completely incorrect	
-	N1 /A

3

N/A

2

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect
69. How to stop/slow hair loss from hepatocellular carcinoma chemotherapy?	 Hair loss (alopecia) is a common side effect of chemotherapy for hepatocellular carcinoma (HCC). It is caused by the chemotherapy drugs attacking rapidly dividing cells in the body, including those in the hair follicles. Unfortunately, there is no way to completely prevent hair loss during chemotherapy. However, there are a few things that you can try to help slow or minimize hair loss: Use a gentle shampoo and avoid styling products: Choose a mild, sulfate-free shampoo and avoid using styling products, such as hair sprays, gels, and mousses, which can be drying and irritating to the scalp. Protect your scalp: If your scalp is sensitive, you can try wearing a hat or scarf to cover your head and protect it from the sun and cold weather. This can help to prevent further irritation and dryness. Eat a healthy diet: A healthy diet rich in protein, iron, and other nutrients can help to support the health of your hair. Try to include foods such as eggs, fish, chicken, beans, and leafy green vegetables in your diet. Use a hair loss prevention product: There are a variety of products available that claim to help prevent hair loss during chemotherapy. These may include topical treatments, such as minoxidil (Rogaine), or supplements, such as biotin or saw palmetto. However, it is important to speak with your doctor before starting any new treatment, as some of these products may interact with your chemotherapy medications or have other potential side effects. Consider a wig or hairpiece: If your hair loss is severe, you may want to consider wearing a wig or hairpiece to help cover your head and boost your confidence. There are many different styles and materials available, so you can choose one that best suits your needs and preferences. It is also important to remember that hair loss during chemotherapy is usually temporary, and your hair will typically begin to regrow a few months after treatment is completed. If you have any concerns about your 	Similar	1
70. Is it safe to get COVID vaccines when undergoing hepatocellular carcinoma treatment?	 hair loss, be sure to discuss them with your doctor or a healthcare professional. It is generally safe for people undergoing treatment for hepatocellular carcinoma (HCC) to receive COVID-19 vaccines. HCC is a type of liver cancer, and people with liver cancer can be at higher risk of serious illness from COVID-19. Therefore, it is especially important for people with HCC to be vaccinated against COVID-19 to reduce their risk of severe illness from the virus. If you are currently undergoing treatment for HCC, it is important to discuss the COVID-19 vaccine with your healthcare provider. They can advise you on the best course of action based on your specific situation and the type of treatment you are receiving. In general, it is safe to receive most vaccines while undergoing cancer treatment, but your healthcare provider will be able to provide more specific guidance. 	Similar	1
71. Should patients wait to cure Hepatitis C (HCV) before or after treatment for hepatocellular carcinoma?	It is generally recommended to treat hepatitis C (HCV) before treating hepatocellular carcinoma (HCC). This is because HCV is a leading cause of HCC, and treating the HCV can help prevent the development or progression of HCC. Additionally, HCV treatment can improve the effectiveness of HCC treatment. It is important for patients with HCV and HCC to work with their healthcare team to determine the most appropriate treatment plan.	It is generally recommended to treat hepatitis C (HCV) before treating hepatocellular carcinoma (HCC). This is because HCV is a major risk factor for the development of HCC, and treating the HCV can help to prevent the progression of liver damage and the recurrence of HCC. In addition, treating HCV can improve the overall prognosis for patients with HCC. It is important for patients with HCV to discuss their treatment options with a healthcare provider and make a plan that is appropriate for their specific situation.	

Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
2	2

2	N/A

1

Questions	Responses 1	Responses 2	Reviewer 1 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 2 grades 1. Comprehensive 2. Correct but inadequate 3. Mixed with correct and incorrect/outdated data 4. Completely incorrect	Reviewer 3 grades for the responses with discrepancies
72. Are there any herbal meds that can be used to help prevent liver cancer from worsening?	There is no evidence to suggest that any herbal remedies can prevent liver cancer from worsening. Liver cancer is a serious and potentially life-threatening condition that requires medical treatment. If you are concerned about liver cancer, it is important to speak with a healthcare professional. They can discuss your treatment options and help you develop a plan for managing your condition.	There is no evidence to suggest that any particular herbs or dietary supplements can prevent liver cancer from worsening. It is important to note that liver cancer is a serious and potentially life-threatening condition that requires medical treatment. If you have liver cancer or are at risk for developing it, it is important to speak with your doctor about your treatment options. In some cases, surgery, chemotherapy, and/or radiation therapy may be recommended to treat liver cancer. It is also important to follow a healthy lifestyle, including maintaining a healthy weight, not smoking, and limiting your alcohol intake, as these factors may help to reduce your risk of developing liver cancer.	1,1	2,1	1,1
73. Does milk thistle help with liver cancer?	Milk thistle is a plant that has been traditionally used to support liver health and is thought to have liver- protective properties. Some studies have suggested that milk thistle may have potential as a treatment for liver cancer, but more research is needed to confirm this. It is important to note that milk thistle should not be used as a replacement for standard medical treatment for liver cancer. If you have liver cancer or are concerned about your liver health, you should talk to a healthcare provider.	Milk thistle is a plant that has been traditionally used for liver health. Some studies have suggested that milk thistle may have liver- protective effects and may be beneficial for people with liver conditions such as cirrhosis and hepatitis. However, there is not enough scientific evidence to support the use of milk thistle for the treatment of liver cancer. It is important to note that liver cancer is a serious condition that requires medical treatment. If you are concerned about liver cancer, it is important to speak with a healthcare professional for a proper diagnosis and treatment plan.	1,1	2,1	2,1