COSD Version 8 Liver Section Item Descriptors

This is a new dataset created on the advice of the liver-specific clinical referencing group. Where data were previously in Upper GI, these have been removed to create a new specialist liver dataset. These data will continue to be part of the Cancer Waiting Times (Site Specific Group of Upper GI), but for COSD, they will now be reported within the new Liver Dataset.

All Items should be completed as fully as possible for **all primary liver cancers** (see list below), accept for BCLC stage and BCLC date, which are only applicable to hepatocellular carcinoma (C220).

- C22.0 Liver cell carcinoma
- C22.1 Intrahepatic bile duct carcinoma
- C22.2 Hepatoblastoma
- C22.3 Angiosarcoma of liver
- C22.4 Other sarcomas of liver
- C22.7 Other specified carcinomas of liver
- C22.9 Liver, unspecified

Items should be completed for the patient's status nearest to diagnosis.

Resources and Support

- There is a HCC staging calculator available on the BASL website here and on the CancerStats website here
- Further information on liver data completion or use please contact Anya.burton@phe.gov.uk
- The full COSD user guide is available via the NCRAS website, alongside other COSD guidance:
  http://www.ncin.org.uk/collecting_and_using_data/data_collection/cosd_downloads_v8: COSD Main Dataset> **COSD v8.0.7 User Guide**
  - For enquires: COSDenquiries@phe.gov.uk

- CancerStats website, available to those with an NHS email address, allows trusts to check the quality of their COSD submissions and contains COSD guidance documentation, amongst many other tools

Domain	Data item	Definition and specific information	Response options	Rationale
Diagnosis	**Liver surveillance scans** **LV16000**	**Has the person had regular six monthly liver ultrasound scans for the purpose of early detection of HCC?** • Information normally available in the patient record.	Y Yes N No 9 Not known	Individuals with cirrhosis are at increased risk of developing HCC (the annual incidence of HCC is approximately 3% in cirrhotic patients). Detection by ultrasound surveillance is associated with improved outcomes in patients diagnosed with HCC
	Liver cirrhosis type **LV16010**	**Presence of cirrhosis** can be defined by previous clinical assessments, current imaging findings, or histopathology before/after treatment. If cirrhosis is present, it can be compensated or decompensated – decompensation describes the inability of the liver to carry out its usual functions and is marked by the presence of ascites, hepatic encephalopathy, or variceal bleeding – If cirrhosis is not decompensated, it is compensated • this information will normally be available in the patient record	1 Compensated 2 Decompensated 8 Patient does not have cirrhosis of the liver 9 Not known	Approximately 80% of HCC occurs in individuals with cirrhosis and cirrhosis is also a risk factor for cholangiocarcinoma. When decompensation is present treatment options for HCC are limited. The presence of advanced liver disease has a strong influence on prognosis in addition to that of the cancer.
	Cause of cirrhosis **LV16020**	**Record if the patient's liver cirrhosis is caused by known risk factors for liver disease**. Select all that apply. This is a multiple repeating data item.	1 Alcohol excess 2 Hepatitis B virus infection	The cause of cirrhosis is associated with different levels of risk for HCC and

		• This information will normally be available in the patient record • These additional core items should also be completed: – Alcohol use – Smoking – Body Mass Index	3 Hepatitis C virus infection 4 Non-alcohol related fatty liver disease 5 Hereditary haemochromatosis	also with different rates of progression in the underlying liver disease. These factors are important for determining overall treatment and prognosis. Multiple causes can be selected.
	Diabetes indicator **LV16030**	**Record if the patient has a diagnosis of diabetes.** • This information will normally be available in the patient record	Y Yes N No 9 Not known	The presence of diabetes is an independent risk factor of development of HCC.

Staging	**Barcelona Clinic Liver Cancer (BCLC) stage** **LV16100**	**The Barcelona Clinic Liver Cancer (BCLC) Stage** includes both anatomic and non-anatomic factors and is widely used worldwide to predict prognosis and determine treatment. This item should only be completed for hepatocellular carcinomas (C220). • The stage calculated closest to diagnosis should be recorded. Three separate pieces of clinical information are required – ECOG Performance Status: This is a measure of the persons functional status from 0 (fully active) to 4 (completely disabled) – Severity of underlying liver diseases measured by the Child-Pugh score that includes both blood test (bilirubin, albumin and INR) and clinical parameters (ascites and encephalopathy). – Cancer burden: The definition of cancer burden here is different to that described by the TNM staging system. • Information normally available in the patient record and on review of imaging at MDT. • An online calculator is available here for each of these parameters that will also calculate the BCLC stage.	0 Very early A Early B Intermediate C Advanced D Terminal	The BCLC staging system integrates information on performance status, liver function, and cancer burden to identify likely treatment options and to guide prognosis. This information is different to that contained in the TNM staging system and, for persons with HCC, BCLC is more predictive of outcome. It is important that core TNM staging information are also completed. Additional information about the size of the largest lesion diagnosed as HCC should be provided in the core dataset The Alpha-fetoprotein (AFP) should also be provided, if known

	Barcelona Clinic Liver Cancer (BCLC) stage date **LV16110**	The date on which the Barcelona Clinic Liver Cancer (BCLC) Stage was recorded. This item should only be completed for hepatocellular carcinomas (C220)	ccyy-mm-dd	
	Portal invasion **LV16120**	**Record whether there is tumour present in the main portal vein, or if there is tumour present in a branch of the portal vein or if there is no tumour present in the portal vein.** • this information is available from imaging review	1 Branch 2 Main 3 Not present 9 Not known	Tumours invasion of large vessels (macrovascular invasion) occurs in different locations. Treatment options may vary by the location of vascular invasion.
	UKELD score **LV16130**	**Record the UKELD score** (range 0-72). The UKELD score is calculated using bilirubin, INR, creatinine and sodium. The UKELD score predicts the risk of mortality due to liver cirrhosis and is used to assess need for liver transplantation. UKELD calculation is included in the calculator available here	0-72	UKELD is a score that indicates prognosis for persons with cirrhosis. It provides an assessment of predicted mortality from liver disease over the following 1 year

Surgical treatment	**Liver transplant** **LV16200**	**Was the patient listed for transplantation?** • This information is normally available in the patient record.	Y Yes N No 9 Not known	Liver transplantation is suitable for persons with early stage disease (BCLC-0/A) and offers the greatest chance of cure of HCC. Not all persons who are listed for liver transplantation receive a transplant. Cholangiocarcinoma is a contraindication for transplant but patients may receive a transplant due to a misdiagnosis. It is important to record this.
	Surgery type **LV16210**	**Was a liver resection (where a part of the liver is removed) or a liver transplant performed?** For each surgery type, there should be a corresponding treatment record created in CORE-Treatment, with the correct treatment modality, date of treatment and organisation code recorded. • this information is available from imaging review	1 Liver Resection 2 Liver Transplantation	Liver resection is treatment with curative intent for persons with early stage disease (BCLC-0/A).

Other treatment types	**Ablative therapy type** **LV16300**	**Describe type of ablative (i.e. locally destructive treatment) therapy used if any.** For each ablative therapy treatment, there should be a corresponding treatment record created in CORE-Treatment, with the correct treatment modality, date of treatment and organisation code recorded.	N None R Radiofrequency ablation M Microwave ablation 8 Other ablative treatment 9 Not known	Ablation treatment is used with curative intent for persons with early stage disease (BCLC-0/A). The option chosen will depend on the size of the cancer being treated, how close the cancer is to other structures, and local experience and expertise.
	HCC embolisation **LV16310**	**Did the patient have a Liver Trans-Arterial Embolisation for HCC?** Transarterial (chemo-)embolization (TA[C]E) is the most frequently used treatment for persons with HCC For each embolisation delivered, there should be a corresponding treatment record created in CORE-Treatment, with the correct treatment modality, date of treatment and organisation code recorded. • Information normally available in the patient record	Y Yes N No 9 Not known	Embolisation is used for persons with intermediate stage disease (BCLC-B) or for persons with early stage disease who are not suitable for other treatments such as surgery or ablation. Embolisation may also be used before surgery in selected persons.

	HCC embolisation type **LV16320**	**What modality of the Liver Trans-Arterial Embolisation was used?** This refers to the type of material injected into the hepatic artery. Embolisation can be done in the following ways: 1. Without chemotherapy or radiotherapy – so called “BLAND” embolisation or TAE 2. With chemotherapy – TACE The following methods are types of TACE: a) C-TACE: standard chemotherapy drug b) DEB-TACE: drug eluting beads coated with chemotherapy. c) RO DEB-TACE: radiopaque drug eluting beads loaded with chemotherapy 3. With local radiotherapy – so called selective internal radiotherapy (SIRT) For each embolisation delivered, there should be a corresponding treatment record created in CORE-Treatment, with the correct treatment modality, date of treatment and organisation code recorded. • Information normally available in the patient record within the radiology reports of the procedure.	1 BLAND 2 C-TACE 3 DEB-TACE 4 RO DEB-TACE 5 SIRT 9 Not Known	There are different types of embolisation that are used in different circumstances and according to local expertise and practices.

Supplementary Core items				
Core data items	**History of alcohol (current)** **CR6760**	**How much alcohol has the person been drinking per week over the past 3 months?** This is a new data item and will allow for this risk factor to be recorded on all cancer patients. • Information normally available in the patient record.	1 Heavy (>14 Units per week) 2 Light (≤14 Units per week) 3 None in this period Z Not Stated (PERSON asked but declined to provide a response) 9 Not Known (Not recorded)	Alcohol consumption is an important factor in the development of liver disease and also liver cancer. If alcohol is not the primary cause of liver disease then it can contribute to accelerating the progression of disease when there are other drivers.
	History of alcohol (past) **CR6770**	**How much alcohol had the person been drinking up to 3 months before the diagnosis?** This is a new data item and will allow for this risk factor to be recorded on all cancer patients. • Information normally available in the patient record.	1 Heavy (>14 Units per week) 2 Light (≤14 Units per week) 3 None ever Z Not Stated (PERSON asked but declined to provide a response) 9 Not Known (Not recorded)	

	Smoking Status **CR6750**	**Specify the current smoking status of the patient.** • This data item could be collected at presentation either in the outpatients or on the ward. This has been moved from Lung only to CORE, to improve ascertainment and allow for risk factors to be recorded on all cancer patients.	1 Current smoker 2 Ex-smoker 3 Non-smoker - history unknown 4 Never smoked Z Not Stated (PERSON asked but declined to provide a response) 9 Unknown	Smoking may contribute to disease development, particularly in combination with other drivers.
	Body Mass Index (BMI) **CR6450**	**What is the person's body mass index?** This is calculated automatically if fields CR6430 and CR6440 are completed, otherwise an estimate can be provided. • This data item would be obtained at presentation either in the outpatient clinic or on the ward.	Number (kg/m^2)	Overweight and obesity are important contributors to the development of primary liver cancer.

	Core staging **CR0520, CR0540, CR0560, CR0580, CR3120 & CR0620, CR0630, CR0640, CR0610, CR3130**	**What is the TNM stage at the time of diagnosis and the confirmed TNM stage after treatment?** These are defined "pre-treatment" from the initial imaging based evaluation and "final" where information from surgical treatment is available. • Information normally available in the patient record and on review in the MDT	Text	Although additional factors are relevant in determining disease severity in HCC, TNM staging provides complementary information and is important for monitoring changes in stage at presentation over time
	Lesion size (Radiological) **CR0350**	**What is the size of the person's largest primary lesion on imaging (in millimetres)?** • Information normally available in the patient record and on review in the MDT.	Number (mm)	The size of the largest lesion carries important information even within individual stages of the BCLC system. This information might be used to guide treatment selection.
	Alpha fetoprotein **CT6520**	**What is the maximum alpha fetoprotein (AFP) concentration at diagnosis?** This is recorded in kU/L or U/mL (these are equivalent). The maximum value before diagnosis should be recorded. • Information normally available in the patient record and on review in the MDT.	Number (kU/L or U/mL)	AFP carries additional information about prognosis in persons with HCC. This information is relevant for all forms of treatment.