**Alcohol related LivER disease audiT : ALERT-UK**

**Protocol version 8.0 (January 2024)**

**Table of Contents**

Table of Contents

[Abbreviations 2](#_Toc124222180)

[Project Summary 3](#_Toc609749847)

[Background 4](#_Toc314509869)

[Aims and Objectives 6](#_Toc1129929501)

[Methods 7](#_Toc2029273480)

[Site Eligibility 7](#_Toc911038627)

[Audit period 8](#_Toc2131556159)

[Patient Identification 8](#_Toc238196676)

[Inclusion Criteria 9](#_Toc1421012632)

[Exclusion criteria 9](#_Toc1353471361)

[Data Collection 9](#_Toc1719407383)

[Data Extraction 9](#_Toc1714208831)

[Audit Standards 14](#_Toc745729106)

[Data Analysis 14](#_Toc1800739288)

[Outputs 15](#_Toc682761491)

[Ethics 15](#_Toc1613951700)

[Steering committee 15](#_Toc1135848985)

[Reference 16](#_Toc904544637)

[Appendix 1 : ICD 10 codes for LAA 17](#_Toc760405194)

[Appendix 2: HRA decision tool outcome 19](#_Toc571049608)

## Abbreviations

**AH** Alcohol related hepatitis

**ARLD** Alcohol related liver disease

**AUD** Alcohol use disorder

**BASL** British Association for the Study of the Liver

**BSG** British Association of Gastroenterology

**EOLC** End of Life Care

**HES** Hospital episode statistics

**IQILS** Improving Quality in Liver Services

**KPI** Key performance indicators

**LAA** The Liverpool ArLD Algorithm

**MDT** Multidisciplinary Team

**NICE** National Institute for Health and Care Excellence

**NIHR** National Institute for Health and Care Research

**SIG** Special Interest Group

## Project Summary

**Background:**

Alcohol-related liver disease (ARLD) is the commonest cause of liver related morbidity and mortality in the UK, and deaths from ARLD have doubled in the last decade. The management of ARLD requires treatment of both liver disease and alcohol use; but previous work has identified significant shortcomings in the quality of care for these patients. In response to this, quality standards and key performance indicators for ARLD management have been developed by a collaborative group from the British Association for the Study of the Liver (BASL), British Society of Gastroenterology (BSG), The British Liver Trust and patient representatives. In this audit, we aim to assess the current standards of care for people admitted to hospital with ARLD in the UK.

**Aims and Objectives:**

The Alcohol related LivER disease audiT, “ALERT –UK", is a national audit designed to evaluate the current standards of care for patients admitted to UK hospitals with ARLD. The primary objectives are to assess the provision of inpatient care against defined quality standards and identify areas for targeted improvement. Secondary outcomes aim to explore the association between patient and institution related factors with quality of inpatient ARLD care.

**Methods**:

ALERT UK is a nationwide multi-centre retrospective audit. All UK hospitals involved in treating inpatients with ARLD are eligible to participate. Site recruitment will be facilitated through trainee research networks, social media and endorsement by national societies. The first 20 patients from each site with an end of admission date (discharge or death) during the period of July 1st 2022 and September 30th2022 will be eligible for inclusion. These will be identified using the Liverpool ARLD Algorithm (LAA), a validated method based on ICD-10 codes. Data collection will be conducted using a secure, anonymised data collection tool, incorporating patient specific and institution level variables. Outcomes will be presented through descriptive statistics and where possible, logistic regression analysis to identify significant associations with outcome measures.

**Outputs:**

ALERT-UK aims to facilitate developments in ARLD care in the UK. The audit report will be published under a collective group name, but all contributors will be recognised as formal collaborators and will be Pubmed searchable and citable in any publications. Site level data will be fed back to participating centres for local discussion and presentation.

## 

## Background

Alcohol related liver disease (ARLD) is the commonest cause of liver related ill health and deaths in the UK. (1) National data published by the Office for Health Improvements & Disparities indicate that both hospital admissions and deaths from ARLD are continuing to rise year on year. (2) Deaths from ARLD have doubled in the last decade, with the latest Office for National Statistics (ONS) data reporting the highest number of alcohol-specific deaths on record, of which liver disease constitutes 78%.(3) Of added concern is the increase in premature (<75 years) mortality rate from ARLD with the mean age of death (56.5 years) now even younger than in 2019 (57.1 years).(4)

Whilst there are clear variations in the standard of care provided for all patients with liver disease, there are particular concern regarding patients with ARLD (5, 6). The 2013 report by the national confidential enquiry into patient outcomes and death (NCEPOD) highlighted a series of missed opportunities in relation to the care of hospitalised patients with ARLD.(7) It found that ‘*the care was less than good in more than half of the cases* *reviewed’* and basic omissions in patient care were prevalent. Given the escalating mortality rate of these often very young patients, the lack of progress that has been made since this initial report is alarming. An updated NCEPOD report from 2022 has shown some improvements but highlighted ongoing deficiencies in care and widespread failure to implement the previous recommendations. ((8)

In response to this, a multidisciplinary group of experts from the British Association for the Study of the Liver (BASL) and British Society of Gastroenterology (BSG) ARLD Special Interest Group (SIG), British Liver Trust and patient representatives have developed a series of quality standards for the management of ARLD (9). These include several measurable key performance indicators (KPIs) that have the potential to influence patient outcomes and will allow services to benchmark their practice. In addition, the National Institute for Health and Care Excellence (NICE) have recently updated their guidance on management of alcohol use disorders (AUD). Their quality standards for patients with unplanned admissions to hospital that are relevant to our patient group will also be incorporated ((10).

In this audit, we aim to assess the current standards of care for people admitted to hospital with ARLD in the UK. This will then identify areas for targeted improvement to support the delivery of high-quality care for patients with ARLD and reduce variation between areas.

The Alcohol related LivER disease audiT, ‘ALERT-UK’, has been developed as a trainee-led, UK-wide collaborative audit and will expand upon work from the 2020/21 UK survey from NCEPOD that related to ARLD services in the UK. ALERT-UK has been endorsed by Torch UK, BASL and BSG and aims to involve as many sites as possible to achieve impactful and representative data.

## Aims and Objectives

1. Evaluate current service provision for inpatients with ARLD in the UK against defined quality standards
2. Identify areas of care for targeted improvement

Secondary objectives:

* To identify whether patient-related factors (including but not limited to age, diagnosis, liver disease severity) are associated with provision of inpatient ARLD care.
* To identify whether institution-related factors (including but not limited to presence of dedicated hepatology service, inpatient alcohol team and dedicated discharge clinic) are associated with inpatient bed days and referral for consideration of liver transplant.

## 

## Methods

ALERT-UK is a national multi-centre retrospective audit of provision of inpatient care for patients with ArLD in the UK.

### Site Eligibility

Our aim is to collect a representative sample of sites from around the UK, including level 1, 2 3 hepatology centres. It is envisaged that site recruitment will take place via trainee research networks, social media, and promotion via endorsing organisations.

All UK hospitals caring for patients with ArLD are eligible to contribute. Participating sites will need to register the site details with the central audit team via **alertaudituk@gmail.com**. It is suggested that the local team would comprise of one supervising consultant and up to 4 further team members who will be responsible for local audit registration, data collection and entry and communication with the central audit team.

### Audit period

Patients discharged from hospital with ARLD as a primary or secondary diagnosis between 1st July 2022 – 30th September 2022 (inclusive) will be eligible for inclusion. To ensure that larger sites do not bias the audit results we have asked for the first 20 patients meeting criteria with the audit period ONLY.

### Patient Identification

Each registered site will be required to request a list of eligible patients from their relevant audit/coding department. Patient identification will be based on hospital episode statistic (HES) coding. Patients will be identified using the validated Liverpool ARLD Algorithm (LAA) that encompasses the ICD-10 codes listed in **Appendix 1.** The LAA requires the ICD-10 codes to conform to one of four patterns (Table 1)**.** This approach accounts for the diversity of coding patterns associated with ARLD and has been found to identify approximately 100% more cases than the standard coding approach (11). We will provide a pre-coded spreadsheet to centres that applies the LAA to local emergency admission data for patient identification.

|  |
| --- |
| 1. ARLD-specific code recorded as primary diagnosis (ARLD-primary) |
| 2. ARLD-specific code recorded as secondary diagnosis.  All higher order diagnoses must be either:   1. Symptom, sign or complication (jaundice, varices, acute kidney injury, encephalopathy and other relevant diagnoses suggesting admission for ARLD complications)   Or   1. Other alcohol-specific diagnosis (codes for other alcohol specific disorders such as alcohol intoxication, withdrawal, and organ-specific disorders, e.g. alcoholic gastritis) |
| 3. Nonspecific liver disease recorded as a primary diagnosis (codes for liver disease without specific aetiology, e.g. cirrhosis unspecified)  All lower order diagnoses must be either:   1. Symptom, sign or complication,   Or   1. Other alcohol-specific diagnosis (at least one must be recorded) |
| 4. Nonspecific liver disease recorded as a secondary diagnosis  All higher order diagnoses must be either:   1. Symptom, sign or complication,   Or  B) Other alcohol-specific diagnosis (at least one must be recorded) |

**Table 1.** Liverpool ARLD Algorithm: HES codes must conform to one these 4 patterns for inclusion in the audit

### Inclusion Criteria

1. First 20 patients discharged from hospital with ARLD diagnosis between 1st July 2022 – 30th September 2022 meeting LAA coding criteria

### Exclusion criteria

1. Patients aged under 18
2. Patients on end of life care pathway (EOLC) prior to or within 24hours of admission
3. Patients transferred from another centre for specialist service/procedure
4. Active non hepatic malignancy or metastatic liver cancer

### Data Collection

Data collection will be conducted using a secure, anonymised data collection form at each centre. This will consist of free text boxes for continuous variables and selection of pre-determined options for categorical variables.

Data will be extracted from electronic health records (EHR) (i.e. electronic notes, scanned notes, discharge summaries, clinic letters, investigation results) or paper records where the EHR is insufficient. Local teams will be responsible for assigning patients an ALERT-UK project number which will need to be indexed to the patient’s hospital number and stored locally in password protected documents on secure NHS trust servers.

### 

### Data Extraction

The following data from each site will be required at registration:

|  |  |
| --- | --- |
| Variable | Data Entry Options |
| 1. Hospital | Level 1 – Non regional liver unit /Non-transplant centre  Level 2 – Regional liver unit  Level 3 – Transplant Centre |
| 1. Does a hepatologist or gastroenterologist with interest in hepatology review all liver inpatients? | Yes – hepatologist  Yes – Gastroenterologist with an interest in hepatology  No |
| 1. Is there a lead consultant for alcohol care at your hospital ? | Yes  No |
| 1. Hospitals IQILS accreditation status | None  Working towards accreditation  Level 1  Level 2 |
| 1. Does your hospital have a inpatient multidisciplinary alcohol care team? | Yes  No |
| 5b. If yes , who makes up the team? | Alcohol nurse Y/N  Support worker Y/N  Addiction psychiatrist Y/N  Gastro/Hepatologist Y/N  Other ………………. |
| 1. Does your hospital use a validated alcohol screening questionnaire? | No  AUDIT  AUDIT-C  FAST  SASQ  Other …………. |
| 1. Does your hospital have a specific protocol for the management of acute alcohol withdrawal ? | Yes  No |
| 1. Does your hospital have a dedicated post-discharge early follow up gastro/hepatology clinic | Yes – Nurse led  Yes – Consultant led  No |

**Table 2:** Institution level variables required.

The following information about each patient in the audit will be required:

|  |  |  |
| --- | --- | --- |
| Variable | Data Entry Options | Explanatory Notes |
| 1. Patient Identifier | *Free text* | *unique identifier made up of assigned hospital code and audit number 1- 20*  eg: **SJUH1** |
| 1. Age on admission | *Free text* |  |
| 1. Sex | Male  Female |  |
| 1. IMD Decile | 1-10 | *Postcodes can be entered here to return IMD deciles:*  *https://imd-by-postcode.opendatacommunities.org/imd/2019* |
| 1. Date of admission | dd/mm/yy |  |
| 1. End of admission - date of discharge/transfer/death: | dd/mm/yy |  |
| 1. First liver related hospital admission | Yes  No |  |
| 1. Drinking alcohol within 8 weeks of admission? | Yes  No  Not documented | *Will help determine likelihood of AH +/- suitability for OLT referral* |
| 1. If abstinent, how long? (months) | *Free text* |  |
| 1. Survival until discharge? | Yes  No |  |
| 1. Documented abstinence advice? | Yes  No  NA | *There must be a written entry in the notes that the patient was informed of need for complete abstinence from alcohol* |
| 1. Reviewed by gastroenterology or hepatology consultant\* within 24 hours of admission? | Yes  No | *\*or equivalent eg staff grade/speciality doctor.* |
| 1. Principle care team during admission? | Hepatology  Gastroenterology  General/Acute medicine  Other (medical specialty)  Other (non-medical speciality) | *This is the speciality that was responsible for care for the majority of the admission or considered to have overall responsibility for the patient* |
| 1. Discussion with ICU during admission episode? | Yes – discussed and declined admission  Yes – discussed and accepted for admission  No – not discussed |  |
| 1. Withdrawal regime prescribed in first 48 hrs of admission? | Symptoms triggered regime  Fixed dose/reducing regime  None  NA | *If patient is considered to have been at risk of alcohol withdrawal but nothing prescribed on admission select* ***‘None’.***  *If patient abstinent from alcohol at time of admission/deemed no risk of withdrawal please select* ***NA*** |
| 1. Reviewed by alcohol care team/ addiction practitioner during admission? | Yes  No | *Specialist addiction practitioners may come from a variety of backgrounds including but not limited to nursing or medical training. The team should provide a dedicated assessment around alcohol use separate to the treating medical team. This could be completed by an Alcohol Specialist Nurse, an Alcohol Liaison Nurse or a member of the Alcohol Care Team* |
| 1. Assessed by a dietician during admission? | Yes  No |  |
| 1. Diagnosis of AH documented during admission? | Yes  No | *It is expected that the vast majority of patients will not have a liver biopsy so a clinical diagnosis of ‘probable AH’ is sufficient for this.*  *This can be based on documentation of AH diagnosis in the clinical notes or as assessed by the auditor based on ‘Onset of jaundice (serum bilirubin 50µmol/l) within 8 weeks and excessive alcohol consumption within 60 days of presentation’ The liver biochemistry should be compatible with AH with a raised AST, an AST-to-ALT ratio of >1.5 and neither value >400 iu/l’* |
| 1. If diagnosis of AH is there a documented decision around consideration of corticosteroid treatment? | Yes  No | *This is to assess if steroids were considered for treatment ,* ***NOT*** *if steroids were given* |
| 1. Sodium, Creatinine, Urea, Bilirubin, INR, Albumin, WCC | *Free text* |  |
| 1. Decompensation manifestation?   Jaundice | Yes  No |  |
| 1. Decompensation manifestation?   Encephalopathy | Yes: G1-G2  Yes: G3-4  No | *As per West Haven criteria* |
| 1. Decompensation manifestation?   Ascites | Yes: Medically controlled  Yes: Poorly controlled  No |  |
| 1. Decompensation manifestation?   GI bleed | Yes  No |  |
| 1. Written information on diagnosis provided? | Yes  No | *There should be documented evidence that the patient was provided with written information at the time of discharge. This should include details about their liver disease, the reasons for hospital admission, treatment received and plans for follow-up including advice about abstinence and sources of alcohol support.* |
| 1. Was the patient provided with OP clinic date at the time of discharge? | Yes  No | *Clinic date should be documented in medial notes or on discharge paper work.* |
| 1. Was the BSG discharge bundle completed on discharge? | Yes  No |  |
| 1. Was the patient seen in clinic within 6 weeks of discharge? | Yes – seen by doctor  Yes- seen by specialist nurse  No – patient did not attend (DNA)  No – no appointment made |  |
| 1. Time from discharge to first OP review (weeks) ? | *Free text* |  |
| 1. Relapse prevention medication offered on discharge /1st post admission clinic review? | No  Yes – Acamprosate  Yes – Baclofen  Yes – Naltrexone  Yes- Disulfiram  Yes - Nalmefene  Yes – other | *eg acamprosate, baclofen or naltrexone, disulfiram, Nalmefene*  *This can be by medical team or from specialist alcohol services* |
| 1. Did the patient meet criteria for consideration of transplant referral during admission or in 1st post admission follow up clinic ? | Yes  No | *If evidence of decompensated disease (jaundice/synthetic dysfunction , ascites,, encephalopathy, bleeding)* ***AND*** *patients have demonstrated three months of alcohol abstinence or earlier if they show good engagement with addiction services- transplant referral should be considered* |
| 1. Was the patient referred to a transplant centre? | Yes  No – not considered/mentioned  No – evidence of consideration but contraindications  No – evidence of consideration but does not meet criteria  No – evidence of consideration but improving trajectory |  |
| 1. Outcome as of 01/08/2023 | Died  Alive  Received liver transplant |  |
| 1. Abstinence status as of 01/08/2023? | NA – died  Unknown  Abstinent  Drinking | *Use last available information as close to this date as possible ( 3 months either side of 1/8/23 acceptable)* |
| 1. Number of clinic DNAs since discharge (as of 01/08/2023) |  | *Number of Gastroenterology/ hepatology clinic appointments not attended* |
| 1. Management plan as of 01/08/2023 | NA – died  Unclear/no long-term plan made  Referred/assessed /received transplant  Referred/assessed/received TIPSS  Medical management – improving trajectory  Medical management – decomp/ no improvement  Lost to follow up | *Use last available information as close to this date as possible ( 3 months either side of 1/8/23 acceptable)* |
| 1. Palliative care referral made any point post discharge ? | Yes  No | *This refers to any time in the year following discharge in July 2022* |
| 1. Enrolled in any research study during admission or follow up period? | Yes  No |  |
| 1. Bloods and decompensation status as of 01/08/2023 |  | *Use last available information as close to this date as possible ( 3 months either side of 1/8/23 acceptable)* |

**Table 3:** Patient level variables

## Audit Standards

|  |  |  |  |
| --- | --- | --- | --- |
| **Hospital management** | Numerator | Denominator | Target |
| 1. **Patients admitted to hospital with ARLD should be seen by a liver specialist clinician within 24 hours** | Patients seen by a liver specialist clinician within 24 hours of being admitted to hospital | Patients admitted to hospital with a primary diagnosis of ARLD | 95% |
| 1. **Patients admitted to hospital with ARLD and AUD should be assessed by a specialist addiction practitioner during their admission and offered appropriate intervention and referral** | Patients reviewed by an alcohol practitioner during hospital admission | Patients admitted to hospital with a primary diagnosis of ARLD and recent alcohol intake | 95% |
| **4. Patients with decompensated ARLD should have a specialist dietary and nutritional assessment by a dietician experienced in the management of patients with liver disease** | Patients assessed for malnutrition | Patients admitted to hospital with a primary diagnosis of ARLD | 95% |
| 1. **Corticosteroid treatment should be considered in AH with indicators of likely beneficial response (GAHS≥9; MELD 21-51; NLR 5-8).** | Documented decision regarding corticosteroid treatment | Patients with primary diagnosis of acute AH | 90% |
| 1. **Patients should be provided with clear, written information about their liver disease in a manner that they can understand before they leave hospital. Provision of this information should be documented in medical notes or discharge letter.** | Patients given written information about liver disease | Patients admitted to hospital with a primary diagnosis of ARLD | 90% |
| 1. **Patients hospitalised with decompensated ARLD or AH should be followed up by clinicians with specialist interest in hepatology within 6 weeks of discharge.** | Patients seen in a liver clinic within 6 weeks of discharge | Patients admitted to hospital with a primary diagnosis of ARLD | 90% |
| 1. **ARLD patients with a UKELD ≥49 and ongoing hepatic failure who have been abstinent for at least 3 months should be considered for liver transplant referral.** | Patients referred to a transplant centre, or documented reason for not doing so | Patients with decompensated ARLD in outpatient clinics or inpatients | 90% |
| 1. **Adults in acute alcohol withdrawal in hospital are assessed and monitored following locally specified protocols \*** | the number in the denominator who are assessed following locally specified protocols | the number of adults in acute alcohol withdrawal in hospital (with ARLD for this audit) |  |

**Table 4 :** Audit standards .( \*standard from NICE guidelines on AUD )

## Data Analysis

The primary outcomes will comprise of descriptive statistics to present summaries of the pooled data against the pre-defined standards, usually expressed as a percentage. Only records with >90% completeness will be included in analysis and missing data will be actively sought from participating centres. Where possible logistic regression will be used to identify significant association with outcome measures of early follow up, length of stay and referral for transplant.

Site data will be pooled and presented with no identifiable site level data and any data sharing will remain confidential to the participating centre.

## Outputs

ALERT-UK aims to build on the considerable achievements of recent trainee led hepatology projects in the UK and continue to expand the trainee network. It is planned that any outputs from the audit will be published under a collective group name (eg ALERT UK team’) but all contributors will be recognised as formal collaborators and will be Pubmed searchable and citable in any publications. Individual site level data will be reported back to hospitals at the end of the audit for local presentation and discussion.

## Ethics

Based on the HRA decision tool, ALERT-UK is not classified as research, therefore ethical approval is not required (**Appendix 2**). As an audit with no direct impact on patient care, sites may participate once they have local clinical audit approval in place. Only routinely recorded data will be collected, and no directly identifiable data will be entered on the project database; collaborators will only upload anonymised clinical data.

## Steering committee

|  |  |  |
| --- | --- | --- |
| Name | Affiliation | Role on committee |
| Ashwin Dhanda | University of Plymouth | Lead |
| Laura Burke | Leeds Teaching Hospitals | Trainee Co-Lead |
| Vikram Bains | Cambridge University Hospitals | Trainee Co-Lead |
| Dianne Backhouse | Hull University Teaching Hospitals | Nurse Lead |
| Ewan Forrest | Greater Glasgow and Clyde | Scotland Co-Lead |
| Mhairi Donnelly | Royal Infirmary of Edinburgh | Scotland Co-Lead |
| Keith Bodger | University of Liverpool | LAA tool implementation |
| Conor Braniff | Belfast Trust | NI Co-Lead |
| Roger McCorry | Belfast Trust | NI Co-Lead |
| Arj Singanayagam | St George’s Hospital | London/South of England Lead |
| Andrew Yeoman (tbc) | Aneurin Bevan | Wales Lead |
| Richard Parker | Leeds Teaching Hospitals | North of England Lead |

## Reference

1. Digital N. Statistics on Alcohol, England 2021. 2022.

2. Disparities OfHIa. Local Alcohol Profiles for England. 2021.

3. Statistics OfN. Alcohol-specific deaths in the UK: registered in 2021

Source: Home People, population and community Births, deaths and marriages. 2021.

4. Disparities. OfHIa. Liver disease: applying all our health. 2022.

5. Allison MED, Verne J, Bernal W, Clayton M, Cox S, Dhanda A, et al. Deaths from alcohol-related liver disease in the UK: an escalating tragedy. Lancet. 2023;401(10375):418-20.

6. England PH. The 2nd Atlas of variation in risk factors and healthcare for liver disease in England. 2017.

7. NCEPOD. Measuring the units: a review of patients who died with alcohol-related liver

disease. 2013.

8. NCEPOD. Remeasuring the Units An update on the organization of alcohol-related liver disease services. 2022.

9. Parker R, Allison M, Anderson S, Aspinall R, Bardell S, Bains V, et al. Quality standards for the management of alcohol-related liver disease: consensus recommendations from the British Association for the Study of the Liver and British Society of Gastroenterology ARLD special interest group. BMJ Open Gastroenterol. 2023;10(1).

10. Alcohol use disorders: diagnosis and management. NICE guidancePublished: 24 August 2011 Updated: 06 July 2023.

11. Dhanda A, Bodger K, Hood S, Henn C, Allison M, Amasiatu C, et al. The Liverpool alcohol-related liver disease algorithm identifies twice as many emergency admissions compared to standard methods when applied to Hospital Episode Statistics for England. Aliment Pharmacol Ther. 2023;57(4):368-77.

## 

## Appendix 1 : ICD 10 codes for LAA

|  |  |
| --- | --- |
| **ArLD codes** | |
| K700 | Alcoholic fatty liver |
| K701 | Alcoholic hepatitis |
| K702 | Alcoholic fibrosis and sclerosis of liver |
| K703 | Alcoholic cirrhosis of liver |
| K704 | Alcoholic hepatic failure |
| K709 | Alcoholic liver disease unspecified |
| **Symptoms, signs and complications of liver disease** | |
| A418 | Other specified septicaemia |
| A419 | Septicaemia, unspecified |
| C220 | Malignant neoplasm, liver cell carcinoma |
| D65X | Disseminated intravascular coagulation [defibrination syndrome] |
| D684 | Acquired coagulation factor deficiency |
| D688 | Other specified coagulation defects |
| D689 | Coagulation defect, unspecified |
| D695 | Secondary thrombocytopenia |
| D696 | Thrombocytopenia, unspecified |
| E46X | Unspecified protein-energy malnutrition |
| E86X | Volume depletion |
| E871 | Hypo-osmolality and hyponatraemia |
| E872 | Acidosis |
| E876 | Hypokalaemia |
| E877 | Fluid overload |
| E878 | Other disorders of electrolyte and fluid balance NEC |
| F058 | Other delirium |
| F059 | Delirium unspecified |
| G92X | Toxic encephalopathy |
| G934 | Encephalopathy unspecified |
| I81X | Portal vein thrombosis |
| I850 | Oesophageal varices with bleeding |
| I859 | Oesophageal varices without bleeding |
| I864 | Gastric varices |
| I951 | Orthostatic hypotension |
| I959 | Hypotension unspecified |
| I982 | Oesophageal varices in diseases classified elsewhere |
| I983 | Oesophageal varices with bleeding in diseases classified elsewhere |
| K625 | Haemorrhage of anus and rectum |
| K658 | Peritonitis other |
| K659 | Peritonitis unspecified |
| K766 | Portal hypertension |
| K767 | Hepatorenal syndrome |
| K920 | Haematemesis |
| K921 | Melaena |
| K922 | Gastrointestinal haemorrhage unspecified |
| N170 | Acute renal failure with tubular necrosis |
| N171 | Acute renal failure with acute cortical necrosis |
| N172 | Acute renal failure with medullary necrosis |
| N179 | Acute renal failure, unspecified |
| N19X | Unspecified renal failure |
| R101 | Pain localized to upper abdomen |
| R103 | Pain localized to other parts of lower abdomen |
| R104 | Other and unspecified abdominal pain |
| R160 | Hepatomegaly not elsewhere classified |
| R17X | Unspecified jaundice |
| R18X | Ascites |
| R190 | Intra-abdominal and pelvic swelling mass and lump |
| R402 | Coma unspecified |
| R410 | Disorientation, unspecified |
| R441 | Visual hallucinations |
| R600 | Localized oedema |
| R609 | Oedema unspecified |
| R630 | Anorexia |
| R932 | Abnormal findings diagnostic imaging of liver and biliary tract |
| R945 | Abnormal results of liver function studies |
| **Other alcohol-specific conditions** | |
| E512 | Wernicke Encephalopathy |
| F100 | Mental & behavioural disorders due to use of alcohol: acute intoxication |
| F101 | Mental and behavioural disorders due to use of alcohol: harmful use |
| F102 | Mental and behavioural disorders due to use of alcohol: dependence syndrome |
| F103 | Mental and behavioural disorders due to use of alcohol: withdrawal stat |
| F104 | Mental & behavioural disorders due alcohol: withdrawal state with delirium |
| F105 | Mental & behavioural disorders due to use of alcohol: psychotic disorder |
| F106 | Mental and behavioural disorders due to use of alcohol: amnesic syndrome |
| F107 | Mental & behavioural disorders due use of alcohol: residual & late-onset psychotic disorder |
| F108 | Mental & behavioural disorders due to use of alcohol: other mental & behavioural disorders |
| F109 | Mental & behavioural disorders due use of alcohol: unspecified mental & behavioural disorder |
| G312 | Degeneration of nervous system due to alcohol |
| G621 | Alcoholic polyneuropathy |
| G721 | Alcoholic myopathy |
| I426 | Alcoholic cardiomyopathy |
| K292 | Alcoholic gastritis |
| K700 | Alcoholic fatty liver |
| K701 | Alcoholic hepatitis |
| K702 | Alcoholic fibrosis and sclerosis of liver |
| K703 | Alcoholic cirrhosis of liver |
| K704 | Alcoholic hepatic failure |
| K709 | Alcoholic liver disease unspecified |
| K852 | Alcohol-induced acute pancreatitis |
| K860 | Alcohol-induced chronic pancreatitis |
| T510 | Toxic Effect of Ethanol |
| T518 | Toxic effect of other alcohols |
| T519 | Toxic effect of alcohol unspecified |
| Y910 | Mild alcohol intoxication |
| Y911 | Moderate alcohol intoxication |
| Y912 | Severe alcohol intoxication |
| Y913 | Very severe alcohol intoxication |
| Y919 | Alcohol involvement not otherwise specified |
| Z714 | Alcohol abuse counselling and surveillance |
| **Liver disease without a cause specified** | |
| K710 | Toxic liver disease with cholestasis |
| K711 | Toxic liver disease with hepatic necrosis |
| K712 | Toxic liver disease with acute hepatitis |
| K713 | Toxic liver disease with chronic persistent hepatitis |
| K714 | Toxic liver disease with chronic lobular hepatitis |
| K715 | Toxic liver disease with chronic active hepatitis |
| K716 | Toxic liver disease with hepatitis not elsewhere classified |
| K717 | Toxic liver disease with fibrosis and cirrhosis of liver |
| K718 | Toxic liver disease with other disorders of liver |
| K719 | Toxic liver disease unspecified |
| K720 | Acute and subacute hepatic failure |
| K721 | Chronic hepatic failure |
| K729 | Hepatic failure unspecified |
| K730 | Chronic persistent hepatitis not elsewhere classified |
| K731 | Chronic lobular hepatitis not elsewhere classified |
| K732 | Chronic active hepatitis not elsewhere classified |
| K738 | Other chronic hepatitis not elsewhere classified |
| K739 | Chronic hepatitis unspecified |
| K740 | Hepatic fibrosis |
| K741 | Hepatic sclerosis |
| K742 | Hepatic fibrosis with hepatic sclerosis |
| K746 | Other and unspecified cirrhosis of liver |
| K752 | Nonspecific reactive hepatitis |
| K758 | Other specified inflammatory liver diseases |
| K759 | Inflammatory liver disease unspecified |
| K760 | Fatty (change of) liver not elsewhere classified |
| K762 | Central haemorrhagic necrosis of liver |
| K763 | Infarction of liver |
| K768 | Other specified diseases of liver |
| K769 | Liver disease unspecified |
| K778 | Liver disorders in other diseases classified elsewhere |
| K710 | Toxic liver disease with cholestasis |

## 

## Appendix 2: HRA decision tool outcome

A screenshot of a medical research form

Description automatically generated