Measuring the units: improving care of patients with alcohol-related liver disease

Alcohol-related liver disease is increasingly a disease of the young. While mortality from liver disease has risen steadily, the average age of death is only 59 years (National End of Life Care Intelligence Network, 2012). Several documents have examined the care of patients suffering from liver disease. The National Plan for Liver Services (British Association for the Study of the Liver and British Society of Gastroenterology, 2009) in England identified that secondary care of liver disease was poorly organized and suggested that services could be improved at relatively little cost to the NHS. In 2010, a position statement made recommendations about how the average district general hospital could organize services to improve care for patients with alcohol-related problems (Moriarty, 2010). The National Institute of Health and Care Excellence (NICE) (2010) has published guidance on alcohol and the Chief Medical Officer's 2011 report highlighted liver disease as one of the three key areas for population health in England (Department of Health, 2012).

This article describes some of the findings and recommendations of a study 'Measuring the Units' published by the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) (Juniper et al, 2013).

The aim of the study was: 'To identify the remediable factors in the quality of care provided to patients who died with a diagnosis of alcohol-related liver disease', including:

- Recognition of degree of sickness and early intervention
- Missed opportunities during the final and previous admissions
- Involvement of support services.

Study population and design

A total of 2454 patients were identified who died in hospital with a diagnosis of alcohol-related liver disease between 1 January and 30 June 2011. Two thirds (1584/2418) of all the alcohol-related liver disease deaths identified were male. The median age at death for females was 56 years compared to 58 years for males.

In this study, 1752/2454 (71%) of the patients identified had one or more admissions to hospital in the 2 years before the admission in which they died.

Detailed information was obtained on a sample of cases (limited to three cases per hospital) via a 'clinician questionnaire' completed by the consultant responsible for the patient. Photocopied case note extracts were reviewed in detail by a multidisciplinary group of clinicians (advisors). Data in the report are from 385 sets of notes and 512 clinician questionnaires.

Study findings

The majority of patients (73%) were admitted via the emergency department (363/495) and admission was mostly to general wards. Only 20% (99/489) of patients were admitted directly under the care of a gastroenterologist or hepatologist. Therefore, the initial care of patients admitted acutely with decompensated liver disease is mostly being provided by specialists whose primary interest is not liver disease.

Infection including spontaneous bacterial peritonitis is a common cause of decompensation in liver disease. Cultures are therefore essential first-line investigations. The advisors highlighted a number of investigations that were omitted (89/379) or delayed (53/362). Where inappropriate delay or omission of investigations was noted, this tended to be in tapping ascites, obtaining blood cultures and in performing ultrasound examinations. Ascitic tap was often inappropriately delayed as a result of coagulopathy despite published guidance suggesting that it is safe in these patients.

The advisors were also concerned that an inadequate alcohol history was taken in 176/372 patients reviewed. Similar concerns were expressed regarding alcohol history documented during previous admissions.

Brief intervention is effective in reducing excessive alcohol intake to less harmful levels (Department of Health, 2009). This involves identification of patients with an alcohol problem and motivating them to do something about it. Identification is most effective if a validated tool such as the Alcohol Use Disorders Identification Test (AUDIT) is used. This also helps to identify the level of input required. This can range from simple advice from any health-care professional to a more structured interview with an alcohol health worker taking 20–40 minutes. This type of intervention is effective in reducing excessive alcohol intake to less harmful levels. Despite this, the clinicians reported that 187/499 (38%) patients had not received advice or support to stop drinking.

Most hospitals reported having guidelines for the management of alcohol withdrawal. Despite this the advisors found that an assessment of the risk of alcohol withdrawal was frequently omitted, even when patients were current drinkers (141/270; 52%) and alcohol withdrawal scales were rarely used (29/129; 22%) despite being recommended by NICE. This suggested to the authors that either local guidelines do not reflect NICE recommendations or that they are not being followed.

Implications for doctors

General physicians need to be aware of guidelines for the management of patients with alcohol-related liver disease. The report recommended the development of a toolkit for management of this group of patients to ensure that they receive the best possible care, including appropriate investigations.

Individual doctors who admit and are responsible for the initial management of these patients need to be aware of these recommendations made in the report:

- All patients presenting with decompensated alcohol-related liver disease should have blood cultures included in their initial investigations on admission to hospital.

- If ascites is present in patients presenting with decompensated alcohol-related liver disease, a diagnostic ascitic tap should be performed as part of their initial assessment. Coagulopathy is not a contraindication to this procedure.
- A system should be in place to ensure that all patients admitted to hospital and subsequently identified as being at risk from an alcohol-related disease are promptly referred to an appropriate support service. This system should be subject to regular audit.
- As recommended by NICE, assessment tools, such as AUDIT or the Clinical Institute Withdrawal Assessment – Alcohol, revised, should be readily available for use by all health-care professionals, who should be competent in their use.

Specialist referral and escalation of care

Only 99/489 patients were admitted under the care of a gastroenterologist or hepatologist. As already mentioned there were often omissions or delays in the care patients received. Early review by a liver specialist had the potential to improve care. For example, in this study, if patients were reviewed by a liver specialist, 78% (225/290) had an ascitic tap and if they were not reviewed, only 46% (29/63) had this done. Despite this, 87 patients were not reviewed for more than 3 days, 21 for more than a week and 117 patients were never reviewed by a liver specialist. Of the patients who had no liver specialist review 28 had spent more than a week in hospital before they died.

There was also a failure to escalate care in a large number of patients (59/189) who the advisors felt would have benefited from an escalation in care. Treatment limitation decisions or decisions to withdraw treatment were commonplace (311/377; 82%). It was of concern to note that the advisors believed that this decision was inappropriate in 52/308 cases. If patients were not for escalation, this was sometimes wrongly interpreted as a decision to stop all active treatment.

The report therefore made the following recommendations that all doctors should be aware of:

- All patients admitted with decompensated alcohol-related liver disease should be seen by a specialist gastroenterologist or hepatologist at the earliest opportunity after admission. This should be within 24 hours and no longer than 72 hours after admission to hospital.
- Escalation of care should be actively pursued for patients with alcohol-related liver disease, who deteriorate acutely and whose background functional status is good. There should be close liaison between the medical and critical care teams when making escalation decisions.

Conclusions

All doctors responsible for medical admissions can learn from this study and care will be improved by following the recommendations above. There were many missed opportunities found in this study.

The majority of patients had been to hospital before the admission in which they died. They were not screened adequately for harmful use of alcohol and even when this was identified, patients were not referred for support. When patients were admitted with signs and symptoms of serious liver damage, there were opportunities to improve their care by doing simple things such as screening for or treating sepsis. These were often missed.

In a group of patients who often have complicated problems including major organ failure, specialist review would generally have been of benefit to define the best treatment options. This was frequently delayed and sometimes did not happen at all.

When organ failure occurred and an escalation of treatment was indicated, again the additional treatment that was needed was often not given.

All doctors who will take responsibility for the care of patients with alcohol-related liver disease should be familiar with the recommendations of this report. Many of the recommendations do not require major changes in clinical practice and should be simple to implement. Organizations should also put systems in place to ensure that services are available to support this group of patients. If these recommendations are implemented, outcomes for this complex group of patients will improve. **BJHM**

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KEY POINTS

- All hospital admissions should be screened for harmful alcohol use.
- All patients at risk of alcohol-related liver disease should be referred to a support service.
- Investigation of patients with decompensated alcohol-related liver disease must include blood cultures and, if ascites is present, an ascitic tap.
- All patients admitted with decompensated alcohol-related liver disease should be reviewed by a gastroenterologist or hepatologist as soon after admission as possible.