Original paper

Assessment of hepatitis C infection in injecting drug users attending an addiction treatment clinic

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Abstract

Background Injecting drug users represent a high risk group for hepatitis C (HCV) infection. Currently, screening of this group for HCV is inconsistently implemented.

Aim We designed a HCV assessment algorithm and sought to determine the frequency with which injecting drug users completed the assessment process.

Methods Prospective study of a HCV assessment algorithm in the setting of a specialist outpatient addiction treatment clinic. Participants consisted of consecutive new attenders over a six-month period with a history of injecting.

Results Only 21 (18%) of 119 patients reached a satisfactory endpoint of assessment. Forty-eight injectors were tested for antibody to HCV, of whom 26 (54%) tested positive. Thirteen of those with positive test results were no longer attending when the test result became available. Only four of the 19 patients who were referred, attended the on-site hepatology clinic.

Conclusions Thorough screening of injecting drug users for HCV within one treatment service is difficult. There is a need for explicit policies on this issue involving co-operation between primary care providers and addiction services and hepatology services. (Ir J Med Sci 2000; 169:129-132)

Introduction

Among the difficulties encountered in the investigation and treatment of hepatitis C is the high default rate by patients.[1-4] Ryan studied individuals who became aware that they were hepatitis C antibody positive following blood donation.[5] All were counselled regarding the implications of this result at the transfusion centre and advised to contact their GP to arrange referral to specialist hepatology services.

At follow-up, specialist referral had occurred in only 60% of cases. In the specialist hepatology clinic setting, Foster found that 33% of patients with newly diagnosed hepatitis C did not attend following referral and injecting drug users were over-represented within the group of

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non-attenders.' There are no reports on audit of the screening and assessment of injecting drug users for hepatitis C in the setting of an addiction treatment clinic.

We designed a HCV assessment algorithm and sought to determine the frequency with which injecting drug users completed the assessment process.

Method

Setting

An assessment process for hepatitis C was established in the Drug Treatment Centre at Trinity Court, Dublin, (see algorithm). All attenders with a history of injecting drug use were counselled regarding hepatitis C and encouraged to consent to testing. There were no clear national or international guidelines on the best form and content of such pre-test counselling for hepatitis C.

We modelled the counselling approach on that already in use for HIV pre-test counselling.[6] This involved discussing the test procedure, the implications of both a positive and a negative result and highlighting the need for specialist follow-up in case of positive test results. A serum sample was obtained for analysis, and this usually occurred during the second week of methadone treatment. Those who were no longer attending when the test result became available were requested to reattend by letter. All patients who tested positive for antibody to hepatitis C were advised to accept referral to a hepatologist. Attendance was facilitated by providing initial assessment with a hepatologist within Trinity Court and appointment waiting times were generally less than one week.

The most frequent treatment programme offered to new attenders who were opiate dependent was a brief (21 day) methadone detoxification. During treatment, patients were required to give frequent urine samples to monitor for ongoing drug misuse. Those patients who continued to use opiates during detoxification were usually discharged from the treatment programme. Research indicates that only 20-30% of drug users successfully complete outpatient methadone detoxification.[7]

Hepatitis C Assessment

A short form was designed for the purposes of this prospective study and baseline information was completed by the doctor performing the initial patient interview. All new attenders between 1st August 1996 and 31st January 1997 were included if they had a history of injecting drug use. Testing was considered not to be indicated in those reporting a previous positive test result and in those reporting a negative test result in the preceding six months. The screening test used was a third generation enzyme linked immunosorbent assay for antibody to hepatitis C virus.

Positive tests were confirmed via an additional assay. The audit form was kept with the patient's clinical notes and updated as the patient progressed through the assessment process. Each patient was followed for six months or until they reached an end-point in the assessment algorithm, whichever was the shorter. To ensure completeness of information, the clinical notes of all 397 new attenders were examined at the end of the study.

Statistical analysis

The dichotomous outcome variable examined was successful completion of the assessment process by reaching a satisfactory end-point. The association between successful completion and gender, employment status and referral source was examined by Pearson's chi squared rest or Fisher's exact test as appropriate. Odds ratios and their 95% confidence intervals were calculated. Associations with age and length of injecting history were examined via Student's r test.

Results

There were 138 patients with a history of injecting drug use who first attended during the study period. Our cohort consisted of the 119 for whom hepatitis C testing was currently indicated (see algorithm). Seventy-one per cent were male and 92% were unemployed. The mean age was 22.8 years (range 15 to 37 years) and the mean interval since first injecting was 21 months. All patients injected opiates primarily. Only 12 % were referred by their own GP.

Five (4%) individuals were unwilling to have a test. Only 48 (47%) of those who agreed to testing actually had the test. Fifty-one of the 54 who were not tested after consenting, defaulted from their drug treatment programme prematurely. Of the 48 tested, 26 (54%) were positive for hepatitis C antibody. Thirteen of those with positive test results were no longer attending the clinic when the result became available.

The 21 (18%) patients who reached a satisfactory end-point of our screening process included 16 who were informed of a negative test result, four who attended the on-site hepatology clinic and one who chose to be referred to a hepatology clinic elsewhere. (We were not able to confirm that this last patient attended the other hepatology clinic.)

Females tended to be more likely to complete the assessment (odds ratio 2.1, 95% confidence interval 0.8-5.5). No other independent variable was significantly associated with an increased likelihood of completing assessment.

Discussion

The finding that only 19 (14%) injecting drug users were aware of their hepatitis C status when first attending the addiction treatment service indicates that this high risk group are not being successfully screened elsewhere. Compliance with assessment and treatment of chronic illnesses, which are symptomatically silent, is poor." Although this population is young and unlikely to encounter significant morbidity for many years, early diagnosis of hepatitis C, and subsequent monitoring, should ideally occur.[1,9]

Gordon has argued that screening of targeted populations, such as drug users, is likely to be cost effective.[10] In England the cost of screening has been estimated at Stg£l25 per drug user.[11] If individuals were aware of being hepatitis C positive they might be less inclined to pass on injecting equipment to others. Also they would have the option of curtailing their alcohol consumption, as it is known that moderate to heavy alcohol use accelerates progression to

cirrhosis in chronic hepatitis C.[12] The relatively small numbers involved in this study restricted our ability to detect factors significantly associated with completion of the assessment process. There was a trend for females to be more likely to complete assessment.

The chronic relapsing nature of opiate dependence suggests that many patients will recommence this assessment process during subsequent attendance. The failure of many to complete assessment may be due to a poor understanding by injectors of the implications of hepatitis C.[13] There should he increased emphasis on education regarding hepatitis C during the attendance at treatment services.

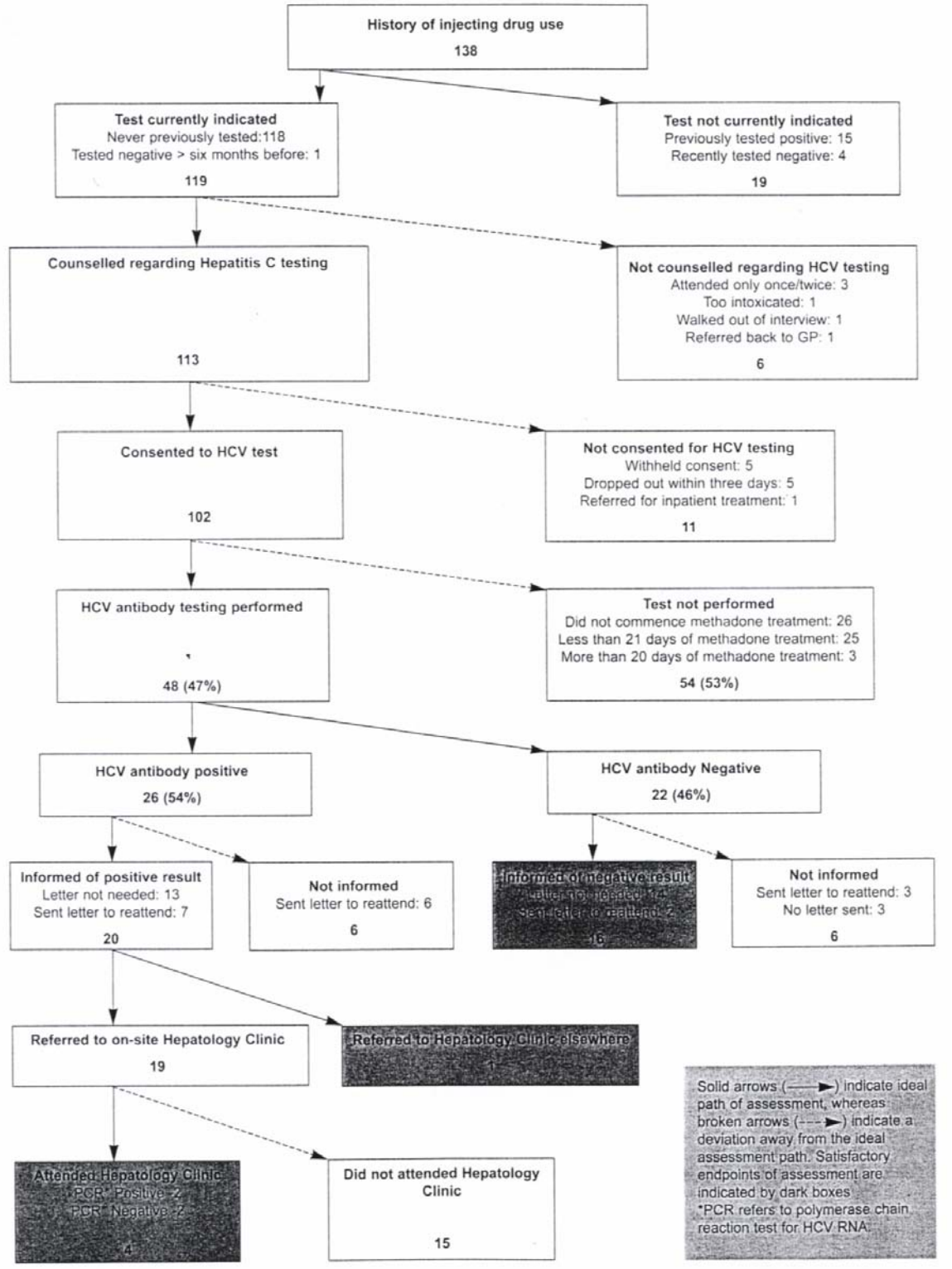
The primary goal of Trinity Court is to assist individuals in their attempts to cease illicit drug use. Medical assessment of illnesses such as HIV and HCV represent secondary roles and are offered to drug users while attending for addiction treatment. Defaulting from addiction treatment emerged as the principal reason for individuals to drop out of their HCV assessment. Almost half of those who dropped out immediately after consenting to HCV testing did not even commence their methadone detoxification. Many others commenced but did not complete the brief detoxification.

Premature cessation of addiction treatment also hampered communication of test results to many drug users. Although letters were posted to all individuals with positive test results requesting their reattendance, six did not reattend to be informed of the rest result. As most drug users self-refer, a letter to the GP was nor considered appropriate. However, this problem could be partially overcome in the future if self-referrers were encouraged to provide consent for addiction centres to communicate the outcome of medical investigations to GPs. The HCV assessment process could also be facilitated by earlier testing during addiction treatment. Many addiction services offer a substantially longer period of methadone treatment during detoxification. This may prolong contact with treatment centres and help complete the hepatitis C assessment.

Among hepatitis C positive injecting drug users, Foster found that 55% attended their initial hepatology assessment appointment. In this study, we found that only four of 19 patients attended the on-site liver clinic. The reason for this is very unclear. There is a reluctance to initiate treatment of hepatitis C where individuals continue to misuse opiates. Awareness of this fact by drug users may cause them to decide to postpone medical investigation and treatment.

The assessment of hepatitis C places additional demands on the resources of health services dealing with injecting drug users. This study identifies the difficulties in completing this assessment. Many injecting drug users have regular contact with a general practitioner, and increased numbers could

Algorithm for assessment of hepatitis C (HCV) infection in injecting drug users. Study of 138 consecutive new attenders over a six-month period to an outpatient addiction treatment clinic in Dublin.



undergo assessment in the primary care setting.[14,15] However, in the USA, Shehab found that GPs demonstrated "considerable confusion about the use of hepatitis C tests and the effectiveness of treatment".[16] There is a need for explicit policies regarding screening, co-ordinated between primary care providers and addiction treatment centres and hepatology services.

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