

## Tackling hepatitis C: a tale of two countries

Hepatitis C remains underdiagnosed and undertreated in parts of the UK. Kelly Morris asks whether the National Liver Strategy for England will deliver what Scotland is already achieving.

20 years after the hepatitis C virus was identified, mortality and hospitalisations are steeply rising in the UK as people infected 20–30 years ago develop end-stage liver disease and hepatocellular carcinoma. At least 250 000 people in the UK might have the infection, mostly undiagnosed, and more likely to present with advanced disease.

Graham Foster, professor of hepatology at Queen Mary's University, London, UK, has "no doubt that more people are being diagnosed with an increase in awareness and testing, but still we are way behind Europe and the rest of the developed world in diagnosing patients and our flow through from diagnosis to treatment is still woefully inadequate". Foster, who also works as a clinician in east London, tells *The Lancet* that "treatment services in general are very poor throughout the UK"; he fears that excellent treatment performance and high standards of care are found in few services.

Injection drug use is the main, but not sole risk factor, for contracting hepatitis C, hence the infection is stigmatised and misunderstood in the general population. Prevalence among people who inject drugs is about 50%, yet local provision of testing and treatment varies widely in this often marginalised and unheard of group, despite clear evidence of its usefulness to reduce disease burden and ongoing transmission.

Moreover, treatment and testing are inextricably linked. "If you have a good treatment service, then GPs [general practitioners] become aware that their patients are being cured and that drives them to find the virus and refer patients on", Foster explains. "If treatment is available at a very low level, GPs stop referring patients because they see nothing happens."

But if specialist services are poorly resourced, then consultants have to place severe restrictions on who gets treatment, he says.

These disparities are increasingly seen now at country level, because action to tackle the virus has widely differed especially between the UK countries Scotland and England, which have similar high prevalence epidemics compared with other countries in the UK and much of the developed world.

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England launched a national hepatitis C strategy in 2002 and then an action plan in 2004. This plan, say critics, had few outcome measures, no clear timetable, no attached financing, and the political environment, which focused on priority setting at local National Health Service (NHS) level, was such that the government would not stipulate what was required of local clinical services. "There were absolutely no levers whatsoever to have this actioned. The result is that largely it hasn't been", says Charles Gore, chief executive officer of the Hepatitis C Trust, which has been campaigning for 10 years for England to develop an actionable plan.

Scotland launched its two-phase action plan in 2006. The 3-year first phase was completed early so that progress and outcomes of the second phase (2008–11) have now been reported for 2 years. From 2007 to 2009, Scotland had a 34% increase in new diagnoses, and a further increase is expected as a consequence of professional and public awareness campaigns, which began early in 2010. Testing has also been enhanced by the roll out of dried blood-spot collection

by finger prick, which allows sampling in non-clinical settings.

Development of clinical services has doubled the number of patients started on treatment in 2007–09, while treatment of prison inmates has increased six times. Provision of clean injecting equipment has increased several times since guidelines were approved in 2009. This year, the governance structure and data-generating initiatives now in place will further monitor progress and outcomes. In April, the plan will become part of the Sexual Health and Blood-Borne Virus Framework.

The Scotland Hepatitis C Action Plan "is regarded globally as a model of good practice", says Gore, who is also president of the World Hepatitis Alliance. To make progress in England, Foster says, Scotland's example "shows how a government-supported initiative can produce enormous dividends in numbers diagnosed and numbers treated". Gore concurs: "what we in England need to learn is to have outcome measures as a key part of a strategy, to put some money towards it, and to have a clear timetable." Scotland's total investment in the action plan is about £43 million.

England's action now depends on the forthcoming National Liver Strategy,



Hepatitis C testing has improved in Scotland because of dried blood-spot collection



Provision of clean injecting equipment has increased in Scotland over the past 2 years

which is currently in development by the Department of Health and the national clinical director for liver services, Martin Lombard of the Royal Liverpool University Hospital NHS Trust, Liverpool, UK. Lombard has spent the past 12 months working with government policy officials, patient and professional groups, the National Institute for Health and Clinical Excellence, and industry “to develop an understanding of how to tackle the escalating burden of liver disease in England”. Through the strategy, expected in autumn, “we want to transform outcomes for people with liver disease and the various underlying conditions that lead to liver disease”, he says.

Government commitment to tackling liver disease, including hepatitis, is clear by inclusion of chronic liver disease in outcome frameworks for the NHS and public health, says Lombard, and the National Liver Strategy must link in with the government’s vision for the NHS and for public health, published in the white papers *Liberating the NHS* and *Healthy Lives, Healthy People*. “Across liver disease, there are significant numbers of patients who need help in their lifestyles to achieve optimum benefit from such a programme. This is an area where we need to do more work with key partners and different agencies”, he says.

“The temptation is going to be to focus very much on alcohol with obesity next as big headline problems”,

Gore tells *The Lancet*. He would like hepatitis C to be the primary focus of strategy: “Out of the main causes of liver disease—alcohol, obesity, and viral hepatitis—hepatitis C is the one bit that is actually solvable in a reasonable amount of time. We could all but eradicate hepatitis C in England within the next 30 years, and make a huge dent in the prevalence in a reasonably short time, if there are clear directions to local NHS on how to go about it in a way that is easy to action.”

Alcohol and obesity must be part of the National Liver Strategy, Foster comments, “but the half million or so people with viral hepatitis deserve a very significant place. There are very large numbers of people infected, the disease burden in terms of cancer and transplantation is huge, and it’s a tractable problem where we have solutions”. Conversely, he says, reducing problem drinking requires strategies that are more social than medical, to tackle marketing and availability of alcohol.

Broadly speaking, there is consensus on hepatitis C, “that we need to identify patients earlier”, says Lombard. “Key to this is the need to engage with and up-skill primary and community care services to help us to do this. We also need to do more work with those areas and populations identified as having a higher prevalence of hepatitis C such as drug treatment units, prisons, and within some ethnic groups... many more patients could be treated and prevented from progressing to advanced liver disease if we can achieve this”, he tells *The Lancet*.

With a new NHS structure and government looking for savings across the board, Gore wonders what will be the levers and incentives to increase testing and treatment. Without safeguards, he says, GP consortia might fail to prioritise or even reduce testing and commissioning of the expensive recommended treatments, with concomitant effects on specialist care. England already ranks second lowest of 14 comparable countries in use of

drug treatments, while about a third of patients referred to hospitals in 2009 were not offered treatment, according to the 2010 audit report from the All-Party Parliamentary Hepatology Group and the Hepatitis C Trust.

Amid this uncertainty, the clinical outlook for patients is about to change radically, with the launch of new drugs boceprevir and telaprevir expected within 1 year. When added to existing treatments, these drugs can increase response rates from 40% to 70% in patients with genotype 1 virus and greatly reduce treatment times. “This will transform the picture, both for those who have failed to respond to previous treatment and for naive patients”, says Foster, but could “expose some terrible holes in our service provision”, he warns.

Lombard acknowledges that “some patients who have not responded to treatment programmes in the past may benefit from the availability of newer treatments in the future”. However, he urges, “we need to understand better, and explain better, which particular patients will benefit and what services are needed to treat them”, especially given future financial pressures, and the need to optimise efficiency in services.

Globally, Gore describes the increasing awareness of viral hepatitis B and C infection, as raised last year in a World Health Assembly resolution. July 28 will be the first annual WHO-supported World Hepatitis Day, and WHO is currently drafting a global viral hepatitis strategy. In January, the US Institute of Medicine released a report that recommends steps to improve awareness, recognition, and surveillance, plus integration of care services, to tackle hepatitis B and C in the USA. Foster comments that, “the message from Scotland is absolutely clear. If you set clear targets and you nominate individuals with clear tasks, action happens. If you set rather vague, pious wishes, nothing effective will take place.”

Kelly Morris