



Contents

Introduction	3
Dawn of a new day: new opportunities for improved patient outcomes	4
More drugs, more options	6
Integrating HCV care into your addictions clinic	8
Complex cases in HCV management	10

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Complexities and comorbidities in HCV care

Introduction

The 15th annual 'Improving Outcomes in the Treatment of Opioid Dependence' (IOTOD) meeting took place at the H4 Hotel Berlin Alexanderplatz on 18–19 May 2017. By successfully bringing together clinicians from across the world, IOTOD 2017 prompted some much-needed and honest discussions on a range of key areas across the field of addictions medicine, with an emphasis on individualising patient management.

One such pressing topic is the hepatitis C virus (HCV): treating it has never been so straightforward, yet many people remain unaware of this fact. Due to its high prevalence in people with substance use dependence, targeting this population will be critical in the fight to eliminate HCV. With the clear objective of educating the delegates on the latest cutting-edge developments in the area, IOTOD 2017 included a 2-hour workshop on HCV management. In this session, three HCV experts brought together their wealth of experience and in-depth knowledge

to deliver exceptional talks and participated in a nuanced case-based panel discussion on the different aspects of HCV management. The interactive component of this workshop provided the delegates with the invaluable opportunity to discuss their doubts, concerns and ideas on HCV treatment with the experts.

Delegates praised the workshop and, in particular, how speakers had conveyed the simplicity and feasibility of curing HCV. Furthermore, there was a genuine desire to improve outcomes for this patient population, with approximately 85% of delegates committing to change their clinical practice to better support HCV-positive patients in addiction services.

This report summarises the content and feedback from the IOTOD 2017 HCV workshop, focusing on the opportunities and educative highlights that will impact the delegates' clinical practice.

International clinicians' commitments to change

WORKSHOP – Complexities and commonalities in hepatitis C care		
Following IOTOD 2017, I will	Percentage of delegates	
Screen 100% of new patients for HCV antibodies	90.0%	
Ensure all seropositive patients receive further tests (e.g. viral load and genotyping)	95.6%	
Discuss HCV test results with PWID to ensure they understand and remember their status	98.5%	
Discuss different HCV therapy options for patients who are diagnosed with HCV	87.0%	
Reach out to local healthcare services to provide HCV care in the addictions setting	83.0%	
Ensure that HCV treatment is not unreasonably withheld for patients with complex presentations (e.g. ongoing injecting drug use, or excessive alcohol use)	90.0%	



Mr Charles Gore

Chief Executive of the Hepatitis C Trust, UK



Dawn of a new day: new opportunities for improved patient outcomes

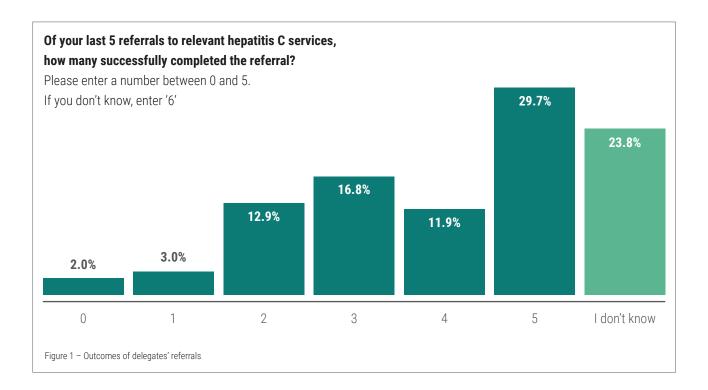
Eliminating HCV: a collaborative effort

Mr Gore kicked off the session with a thought-provoking question to the audience: "If you had a bottle of pills that could cure addiction, wouldn't you be handing them out as fast as you could? In fact, wouldn't you be looking to find people to hand them out to?" This rhetorical question instantly set the theme for Mr Gore's talk – HCV and substance use dependence are tightly interrelated conditions, and addiction clinicians are important allies in the journey towards HCV elimination.

With his insightful review of the challenges and latest developments in the field, Mr Gore captured delegates' interest for the remainder of the workshop and instilled the confidence in them to change their practice and deliver better HCV care.

Key highlights

Opening the talk with an impressive overview of the current global HCV landscape, Mr Gore zoomed in on the tremendous lack of HCV treatment within the population of



people who inject drugs (PWID). For example, historically, treatment rates averaged at approximately 3% in Europe; however, within PWID, they were even less, estimated at 1-2%.

That there is room for improvement in treating HCV within PWID was made evident when 37% of the audience answered that they had failed to screen all patients out of their last five who were accepted into treatment for substance abuse. Furthermore, only a third said they had successfully referred all of their last five patient referrals to a relevant HCV service. Considering these statistics, Mr Gore took a moment to remind the audience of the gravity of HCV non-treatment and insisted that not eliminating HCV would lead to hugely negative consequences, both at an individual and a public health level.

To achieve elimination of HCV, Mr Gore emphasised the importance of overcoming barriers to care and to "bust the myths" surrounding HCV, specifically HCV in PWID. Highlights of the numerous existing false myths cited by Mr Gore included the notion that HCV in PWID is not a priority and that treating PWID is too expensive, a pervasive belief challenged by modelling studies suggesting that **treating PWID in many cases may be cost-saving**, and not just cost-effective. Barriers to care include a lack of education and awareness amongst patients and the stigma towards this patient group which, tragically, is still often observed among physicians.

However, despite the existing barriers, Mr Gore took the opportunity to recall the extraordinary progress that has been made in the past few years. These include, to name a few, the arrival of direct-acting antiviral (DAA) drugs with astounding cure rates, the commitment of numerous countries to eliminate HCV by 2030, the massive reduction in HCV incidence, and the increased use of multidisciplinary approaches, opt-out testing, and peer education and support.

Bringing his talk to a close, Mr Gore reiterated that HCV is part of a much bigger picture and, in many cases, treating it can be the key to addressing other interrelated conditions, such as substance use dependence and mental health. Therefore, why not consider the addiction clinic as a place to address, treat and educate people on HCV?

Finally, Mr Gore concluded with a powerful statement and plea: elimination of HCV is possible and, for this to occur, it is imperative for addiction specialists to seize the opportunity to treat.

Delegate feedback*

- Positive rating of the talk: 99%
- Commitment to change clinical practice based on the talk: 88%

"The HCV session was wonderful, a great motivator to test and treat!"



Professor Graham Foster

Professor of Hepatology, Queen Mary University of London, and Honorary Consultant Physician, Bart's Health NHS Trust, UK



More drugs, more options

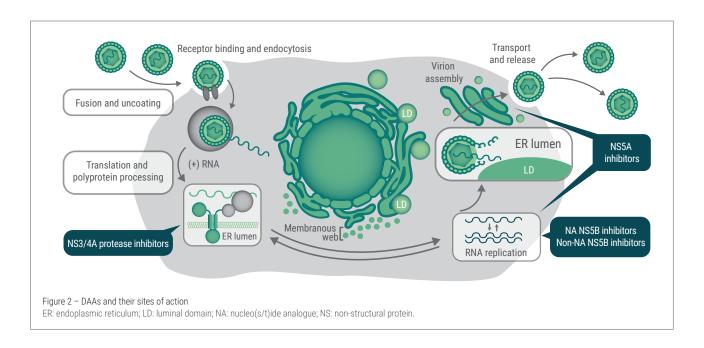
Curing HCV: it ain't hard

The unpleasant and inadequate procedures associated with diagnosing and treating HCV are a thing of the past, and Professor Foster wasted no time in making this crystal clear. Furthermore, HCV management has progressed significantly – so much so that, nowadays, allowing HCV to go uncured is simply inexcusable: "Today's options [for HCV-positive patients] are: you get a scan, you get some tablets, you get cured. It ain't hard."

In his comprehensive yet frank talk, Professor Foster shed light on the often confusing topic of HCV treatment, specifically for genotypes 1 and 3. Closely examining the new wave of DAA anti-HCV drugs and the extraordinary impact they have had on patient care, Professor Foster's confidence in HCV being straightforward to cure was contagious among the audience and the delegates truly welcomed his invaluable insight.

Key highlights

There is no doubt that the advancements in HCV care over the past 5 years have been extraordinary. Professor Foster is the first to marvel at these transformations and expressed his excitement at how attitudes and conversations have gone from 'should we treat hepatitis C?' to now 'how do we best treat it?'



Delving into the history of the disease, Professor Foster admitted that curing HCV was not always a painless and uncomplicated process. In the past, liver biopsies were the primary diagnostic procedure, and patients rarely received adequate education and treatment. However, Professor Foster emphasised that this should be talked about as history, especially to dispel the myth held by many patients that this is still the way forward for HCV. It simply is not and **nowadays the process is far simpler** – the invasive biopsy has been replaced with a simple scan; the suboptimal and side effect heavy interferons substituted by potent tablets with improved safety profiles. "We are hurtling in the right direction."

Moving on from HCV's past, Professor Foster introduced the new generation of DAA drugs, identifying their pharmacological targets and emphasising their being extremely accessible, affordable, powerful and with improved safety profiles. For example, in genotype 1 HCV, two different simple strategies can be used: one involving a sofosbuvir combination, and the other an effective protease combination – both of which have shown around 95% cure rates. For genotype 3 HCV, Professor Foster was delighted to announce the relatively recent licensing of the all-oral, once-daily, 12-week regimen of sofosbuvir/velpatasvir, which does not contain the ribavirin interferon component. Incidentally, the new regimen cures all other genotypes as well – a huge step forward in the journey to eliminate HCV.

However, despite the new DAA drugs being incredibly powerful, Professor Foster warned of the unfortunate

point of no return; patients with cirrhosis require a longterm surveillance for liver cancer, and many patients with advanced liver disease are unlikely to fully recover. This highlights the urgent need to remind patients that livers do not always recover and to **diagnose and treat HCV as soon as possible** to avoid potentially life-long complications.

Furthermore, Professor Foster reflected on recent data from the C-EDGE CO-STAR trial which showed only four re-infections occurring per 100 person-years. These data, he argues, highlight the importance of treating active injectors as re-infection is a rare occurrence.

Concluding his talk, Professor Foster referred to the very positive data from Public Health England indicating that within a year of introducing the DAA tablets, mortality rates had dropped by 11% and liver transplants by 50% – an extraordinary achievement illustrating the powers of these new therapies. Additionally, they reduce rates of transmission, providing a hugely beneficial impact on public health. The arrival of drugs with improved safety and efficacy profiles has transformed the world of HCV, and, as Professor Foster rightly put it, "if we use these drugs properly, HCV should be a disease of the past."

Delegate feedback*

- Positive rating of the talk: 95%
- Commitment to change clinical practice based on the talk: 87%

"The interactive approach was brilliant"



Dr Philip Bruggmann

Internal medicine specialist, Arud Centres for Addiction Medicine. Switzerland



Integrating HCV care into your addictions clinic

Reaching the unreached

Following two excellent talks on best-practice medicine for curing HCV, specifically in PWID, one might wonder: do these strategies actually work in the clinic? After thoroughly reviewing the many barriers to care faced by HCV patients, Dr Bruggmann drew on his own experience as part of a multidisciplinary team providing HCV services in an addiction centre. Supported by excellent results in patient outcomes, Dr Bruggmann expressed his hope that other centres, where possible, might implement this model and provide HCV services under one roof.

In his comprehensive presentation, Dr Bruggmann highlighted the benefits of integrating different services and emphasised the importance of providing HCV diagnosis, treatment and education in settings predominated by people who may not be necessarily engaged in healthcare services.

Key highlights

Echoing the sentiment from the previous talks, Dr Bruggmann commenced with a frank and powerful statement: "If we want to go towards HCV elimination, we need high annual treatment rates in PWID."

However, there remain gaps in the continuum of HCV care that often prevent patients from completing their patient

pathway. Although many barriers are documented at a patient level, such as a lack of education and awareness of the disease, the major drivers of the HCV epidemic are observed at a governmental or systematic level. These include criminalisation of drug use, strict drug law enforcements and harsh drug policies. Examples of obstacles at the physician level are the stigmatisation and discrimination towards HCV patients, which often deters them from attending tertiary care units.

Breaking down these barriers to care is imperative, and Dr Bruggmann highlighted the critical role that multidisciplinary teams providing numerous services under one roof have played in the fight to improve patient outcomes. Exemplifying this approach is the Arud Centres for Addiction Medicine in Switzerland, in which people with substance use dependence are commonly also diagnosed with HCV. Dr Bruggmann delivered an exceptional account of his work in the clinic and described how, by minimising referrals to other clinics, the team had successfully reduced the number of patients who drop out of treatment which, in turn, had reduced re-infection rates.

The arrival of the new wave of DAA drugs has also improved patient outcomes in the clinic, and Dr Bruggmann reported on these the promising results, which showed dramatic improvements in patient outcomes when comparing total

Psychiatrists Primary healthcare by GPs HIV and hepatitis C therapy Psychologists Social worker Nurses - Addiction therapy Dioid substitution therapy Needle and syringe exchange programme

Figure 3 – The various services provided under one roof at Arud Centres for Addiction Medicine

sustained virological response (SVR) and completed treatments in the interferon era (2002–2010) to the new wave DAA era (2015–2017).

Moving on, Dr Bruggmann reiterated the importance of collaboration and recited the example of his work providing HCV care in consumption rooms, where his team were able to reach out to patients who might not be normally engaged with healthcare services. This had provided an invaluable opportunity to identify new cases of hepatitis C, and Dr Bruggmann asserted the approach could feasibly be extended to other settings, both medical and non-medical, that provide care to PWID.

Bringing the talk to a close, Dr Bruggmann urged the delegates to consider integrating HCV services where possible into addiction units. This, Dr Bruggmann concluded, has proven a promising method for successful HCV treatment among PWID, a requisite for achieving HCV elimination.

Delegate feedback*

- Positive rating of the talk: 98%
- Commitment to change clinical practice based on the talk: 76%

"The practical ideas in the HCV talks were very helpful"



Complex cases in HCV management

Chaired by Mr Gore, this interactive, case-based workshop concluded the HCV session. All three speakers, Mr Gore, Professor Foster and Dr Bruggmann, were presented with two complex HCV management cases, and discussed their nuanced approaches amongst themselves and with the audience.

Case study 1: Sophie, intravenous drug user for 14 years

Drug use history: intravenous drug user for 14 years

Treatment history:

- Entered drug treatment services last year
- This was her first attempt at coming off heroin
- Attendance was court-mandated, not voluntary

12 months onward:

- Now on a stable dose of methadone (55 mg daily)
- Occasionally uses on top, but this has become increasingly rare
- Attended intoxicated in first 3 of last 10 appointments

Additional information: As she is an ongoing user, Sophie undertakes bimonthly screening tests as part of the clinic policy. Her latest test revealed she has acquired HCV within the last 3 months. Although being referred for confirmatory blood tests on three separate occasions, she has yet to attend any of these appointments. Twice, she cited difficulty in transport as the primary factor. The latest appointment was missed as she "didn't see the point" and wanted to focus on her recovery.

With his in-depth knowledge and extensive experience in HCV management, Professor Foster leapt straight into the discussion and described that the disengagement seen with Sophie is a very common problem. Approaches to overcoming this obstacle could include persuading Sophie of the value of her treatment, helping to finance her transport and combining her substance misuse recovery program with HCV treatment. Drawing on their own expertise, Dr Bruggmann added he would avoid referring Sophie to other external services unless absolutely necessary, and Mr Gore recommended using peer education to increase Sophie's awareness of the implications of HCV.

Several delegate questions steered the conversation towards the preferred strategy for Sophie if she were to

become pregnant. Considering this scenario, Professor Foster discouraged treating Sophie while pregnant due to the lack of anti-HCV drug indication for this. However, in light of minimal 5% risk of maternal—foetal HCV transmission, his strategy would be to, firstly, encourage Sophie to make whatever choice she felt to be reasonable, and if she decided to go ahead with the pregnancy, monitor the child following birth and treat them when they reached 5 years of age.

On the topic of using daily methadone to introduce Sophie's daily HCV treatment, Dr Bruggmann described its value in some cases but emphasised that not all patients require this support and, in some cases, this may even be an obstacle. Agreeing with Dr Bruggmann, Professor Foster

weighed in and added the importance of tailoring treatment to patients, for which knowledge of the different individuals is of great use.

Several must-dos of Sophie's management were listed during this discussion, including the importance of ensuring her records are up to date, the possibility of using online videos as educational resources, and the recognition that alcohol use may impact adherence to HCV treatment. Touching upon this last point and concluding the discussion of the first case study, Professor Foster considered the pros and cons of treating Sophie if her alcohol consumption increased, and warned that while he would personally offer treatment to Sophie, there is the risk that failed treatment could lead to Sophie losing hope.

Case study 2: Nigel, intravenous drug user for 22 years

Drug use history: intravenous drug user for 22 years

Treatment history:

- Has been in addictions treatment services for 5 years
- Initial attempt lasted 2 years and was initially successful; however, Nigel relapsed 9 months later
- Has been stable for over a year now; switched to buprenorphine 6 months ago, has tapered down to 4 mg per day (take-home dose)

HCV status:

- Tested HCV Ab+ on initial presentation, has only had confirmation tests within past month
- Confirmed active genotype 3 infection

Additional information: Initiated on SOF + PEG/IFN for 12 weeks; treatment provided through an integrated team at the addictions clinic. He was fully compliant for first 5 weeks of treatment; however, did not attend for 6th dose, dropped out of addictions treatment for a month and did not respond to any attempts to contact. He has re-attended on the 9th week of treatment and claims he maintained his daily dose of sofosbuvir. However, he admits to relapsing to heroin use, but denies sharing needles during this time.

The panel were quick to reach a consensus on the immediate next step to Nigel's care – test Nigel for HCV, bearing in mind it is likely he will test negative. It was also agreed that hepatitis B (HBV) should be tested as well, but only for good practice reasons, not because of concerns that HBV will be reactivated following HCV clearing.

Finally, a thought-provoking question from the audience inquired what the experts' strategy would be if Nigel lived in a country where only interferon-based treatments were available. Answering honestly, Dr Bruggmann outlined his preferred approach which would involve potentially opting for interferon treatment were it the only choice available.

However, Dr Bruggmann reiterated the need for all these decisions to be made on an individualised basis using a multidisciplinary team. Agreeing with this plan of action, Professor Foster added that Nigel's awareness and consent regarding treatment options would be essential and that, in this scenario, it would not be wise to reduce Nigel's opioid substation therapy – "that [would be] a catastrophe".

Delegate feedback*

- Positive rating of the talk: 100%
- Commitment to change clinical practice based on the talk: 88%