EACS STANDARD OF CARE
for HIV and COINFECTIONS in Europe

EACS European AIDS Clinical Society

Tackling HIV and co-infections in Europe: towards common standards

Eastern Europe continues to have one of the few HIV epidemics in the world where HIV incidence is still not decreasing, with significant challenges to achieving linkage to care, a meeting by the European AIDS Clinical Society (EACS) in Bucharest, Romania heard.

Despite the huge disparities in care that were highlighted, the Standard of Care for HIV and Coinfections in Europe 2019 meeting featured discussions that will form the basis of a European-wide exercise to audit HIV centres to a common standard.

Two previous meetings in Rome in 2014 and Brussels in 2016 went a long way towards formulating desirable standards, but Europe's extreme inequality of access to effective treatment and prevention has meant it has taken a long time to get to the point where there is enough good practice in common to establish practical, auditable standards that can be applied to all countries.

As well as highlighting the difficulties facing clinicians tackling the needs of people with HIV, the meeting also looked at the needs of people co-infected with viral hepatitis and tuberculosis, or at risk of co-infection.

Towards solving the world's last out-of-control HIV epidemic

Vinay Saldanha, UNAIDS Regional director for Eastern Europe and Central Asia, told the meeting that 1.4 million people live with HIV in eastern Europe and central Asia, 75% of them in Russia. HIV diagnoses in the region increased by 60% between 2010 and 2016 and 34,000 people died of AIDS-related conditions last year.

However, there are signs that new diagnoses may have flattened off – even in Russia – and tuberculosis (TB) diagnoses have declined regionally. HIV diagnoses in eastern Europe are now overwhelmingly among the over-30s and the biggest increase has been among the over-40s, indicating an ageing epidemic.

There is an enormous task ahead to tackle what is still an AIDS emergency, but Saldanha said there were glimmers of hope.

One indication that countries are tackling their epidemics with new resolve is that up till now, HIV drugs have been expensive and their procurement inefficient. New arrangements, both governmental and non-governmental, have negotiated dramatically cheaper prices in some countries, and smaller countries without the resources to negotiate big deals are forming regional buying consortia.

The HIV crisis in eastern Europe is not primarily a crisis of **testing**, though it may be about testing the wrong people. Last year there were 166 HIV tests per 1000 people in the eastern European region compared to 42 in the EU (and far fewer in central Europe). This is primarily due to a tradition of public-health testing in Russia, with a quarter of its citizens tested last year. In Ukraine, a country with 10% of new infections in the region, 4.5% of the population was tested but in Georgia, a small country with a growing epidemic in gay and bisexual men, hardly anyone was tested.

Even in Russia, however, the people who need to be tested may be the ones missed – people who inject drugs and their sexual partners, gay and bisexual men, sex workers and prisoners – as only a quarter of HIV tests were in these key populations.

The big problem is not testing but **linking people to care** and treating them. In eastern Europe 73% of people with HIV know their status but only 36% are on treatment and 26% virally suppressed.

There are signs, however, that regional governments have woken up to the scale of the problem. There have been two top-level summits of eastern and central European health ministers in Minsk (Belarus) in November 2016 and November 2018. A commitment was made to move towards universal treatment of all testing HIV positive and in 2018 nine out of the 15 countries resolved to claim patent protection status under the TRIPS agreement, so they can manufacture and provide generic antiretrovirals (and anti-hepatitis C and TB drugs) in advance of patent expiry.

Armenia, which this year chairs the Eurasian Economic Forum, started moves towards a pooled procurement mechanism for smaller countries. And large reductions in the prices of some antiretrovirals have already been arranged.

In Armenia, Kazakhstan and Moldova, the national governments delegated the task of negotiating drug prices to already-existing international procurement platforms run by multilateral agencies UNICEF, UNDP and the Global Fund. In Kazakhstan this led, in 2016, to an 88.5% reduction in the price of the preferred first-line therapy of tenofovir, emtricitabine and efavirenz from US$956 a year to $109.50. The price has now fallen further to $83. As a result, the number of people on antiretroviral therapy (ART) in the country rose from 6000 in 2014 to 18,000 last year.

In Belarus and Russia, direct negotiations with local generics manufacturers have resulted in price drops that are almost as big. In Belarus, a reduction of 85% was negotiated last year in the price of locally manufactured generic tenofovir/emtricitabine pills, from $37.40 to $5.60 a month.

Why auditable standards are needed

Although EACS has long produced an influential set of international treatment guidelines, notable for its publication in a pocket-sized booklet, it has not, unlike (for example) the British HIV Association (BHIVA), taken the further step of turning them into a formalised, auditable set of standards that can be used to measure the quality of care across the entire European region.

Auditable guidelines may make a difference, Romania's Professor Adrian Streinu-Cercel told the meeting. In those European countries where immediate treatment on diagnosis had been incorporated into guidelines by 2016, 86% of people diagnosed with HIV are now on treatment. In countries that did not incorporate immediate treatment until last year, the proportion on treatment was 68%, and in the six yet to adopt it, it was even lower. This does not mean that adopting auditable standards causes improvements, of course – they may follow the improvements.

In Europe, the high proportion of people co-infected with HIV, viral hepatitis and TB is a factor in treatment failure and lack of access as people may not be diagnosed, linked to care or treated in a co-ordinated and efficient way that maximises their chances of health.

One project that has addressed this is Integrate, an EU-funded programme whose overall objective to implement integrated activities related to earlier diagnosis and linkage to care of HIV, viral hepatitis, TB and STIs in partner countries. In Integrate, through a peer-review process, tools that work for particular disease areas have been identified. Integrate evaluates these tools' generalisability across disease areas and gauges any adaptations they need to be applied to other areas, to identify the optimal mix of approaches.

Integrate's Co-ordinator, Dorthe Raben, told the meeting that it was encouraging that whereas in 2015 Integrate partner countries reported that single tests for HIV or for hepatitis were conducted in 62% of people being tested and only 38% were tested for both infections at the same time, by 2018 only 34% of people were being given single tests and 66% were being offered a test for hepatitis alongside HIV, and other conditions like TB and STIs too. This is an example of the difference that the adoption and auditing of guidelines can make.

Background: Tackling HIV and hepatitis C in Europe

Dr Jerzy Jaroszewicz of the Polish Association for the Study of the Liver said that given there is a World Health Organization (WHO) target that by 2030 90% of people with hepatitis C should know their status, we have a long way to go. It's currently estimated that 13% are aware of their status (globally), with one-third diagnosed in Europe as a whole.

The big gap in Europe is lack of treatment. Here the WHO target is for 80% of those diagnosed to receive direct-acting antivirals (DAAs) by 2030; last year it was estimated that 13% of those diagnosed received treatment (2.5% of all those with hepatitis C).

One of the problems is, as it is with TB, that most of the population that have co-infection with hepatitis C and HIV are former or current injecting drug users, especially in eastern Europe and central Asia.

Here, although the proportions are shifting, it is still the case that 45% of people currently living with HIV got it through injecting drugs. Because the vast majority of people who inject drugs and have HIV also have hepatitis C, 93% of those in the region who have hepatitis C/HIV co-infection are injecting drug users.

Although the mortality threat facing people with co-infection is not as acute as it is for people with HIV/TB co-infection in the region, longer-term outcomes for those co-infected with untreated hepatitis C are still worse than for those who only have HIV, even controlling for other health risks faced by injecting drug users. A long-term Polish study of people with HIV found that 20 years after diagnosis, 19% of people with HIV had died but 40% of those with hepatitis C co-infection had.

Dr Jaroszewicz said that population-wide screening for hepatitis C was not necessarily cost-effective, citing US studies that only found relatively small prevalences of hepatitis C in youth, and a lower acceptance rate and slow referral process in prisoners offered a hepatitis C test at reception.

There were countries and cities that had taken the decision to implement intensified hepatitis C screening and universal treatment. New York and Australia were examples outside Europe, and there is evidence from Australia, in particular, that this is resulting in falls in hepatitis C prevalence.

In Europe, Iceland is the first example of a country that has implemented a national hepatitis C elimination plan targeted at, though not exclusive to, injecting drug users. Its TraP Hep C elimination programme, started in January 2016, is a cohesive, multipronged approach that includes scale-up of prevention, testing and early treatment of hepatitis C in both hospital and community settings. By 2018 it was estimated that between 56 and 70% of Iceland's hepatitis C-positive population had been treated with DAAs.

However, in order to implement this, a multidisciplinary public health model of care and co-operation between government, health services, the penitentiary system and community organisations was needed.

EACS President Dr Jürgen Rockstroh said that although in his clinic in Bonn, Germany 97% of people testing positive for hepatitis C had been treated, the problem was that even in Germany there was a lack of any coherent programme to diagnose people with hepatitis C.

One example of such a programme, he said, would be to include liver enzyme tests among the standard medical tests provided to anyone over 35 who gets a health check-up. However, this idea has faced opposition from the insurance companies that reimburse health costs in Germany because they feared a sudden increase in patients needing expensive DAAs – even though treating people early would in the longer run save money by reducing infections.

Needed: proper harm reduction and care for drug users

The barrier was not one of treatment guidelines, Dr Jaroszewicz said. The majority of European countries where DAAs were available at all now offered reimbursed DAAs at relatively low levels of liver fibrosis. It was lack of other measures to control hepatitis C and HIV infections in injecting drug users.

Modelling studies showed that DAAs in themselves would make little difference to the transmission of hepatitis C in eastern Europe and central Asia. A modelling study of hepatitis C prevention and treatment provision in five countries (Belarus, Georgia, Moldova, Kazakhstan and Tajikistan) found that, by themselves, adding DAA availability to current provision would only reduce new hepatitis C infections by 1 to 14%, depending on the country.

In contrast simply providing needle and syringe exchange would reduce infections by 10 to 25%, and adding opioid substitution therapy (OST) to that would reduce infections by 45 to 55%. Adding in DAAs to that would further reduce new infections, but not by all that much: about 5% more. Finally, if targeted screening programmes were also added, reductions could range from 55% in Tajikistan to 70% in Moldova.

One big problem is that there is an overall lack of co-ordination of agreement on programmes to test more people for hepatitis C in Europe. Dagmar Hedrich of the European Monitoring Centre for Drugs and Drug Addiction said that even now only 50% of people referred for opioid addiction treatment in Europe were tested for hepatitis C.

Dr Adrian Streinu-Cercel of Romania's National Institute for Infectious Diseases said that there was an issue of "wide eligibility, but low accessibility" in many European countries of both hepatitis C testing and of treatment.

A lot of this was due to the continued lack of provision of other forms of harm reduction for injecting drug users, which means that many continued to use street drugs and dropped out of treatment. Dr Streinu-Cercel commented that although OST was available in Romania in theory, it was rationed in practice. When Romania had entered the EU it had promised to treat 12% of its injecting drug users with OST but was currently only treating 7%.

Issues like police harassment of injecting drug users was still a big problem, he said. "Although we provide needle and syringe exchange and the police say they will not harass people who come for them, in practice what happens is that after people leave, the police have secured the rooms our service users have occupied to find evidence of the drugs they have injected and will then charge them."

WHO's Elena Vovc said that part of the problem, as with TB, was that in parts of Europe treatment for drug dependency was the responsibility of non-HIV specialists who had a narrow focus on treating addiction rather than its health consequences. "You tend to get the narcologists taking over and wanting to treat people for addition, but infectious disease and public health get left out." WHO's own structure, which was led by the health policies of individual countries, was an issue here too.

Dr Streinu-Cercel concurred, saying that this was a problem for monitoring and surveillance too: "The drug specialists do collect data on drug use and health outcomes – I have seen a paper linking benzodiazepine use to car crashes – but access to such data for research data tends to be restricted."

Dr Michel Kazatchkine, the former director of the Global Fund who is now the United Nations Special Envoy for HIV/AIDS in Eastern Europe and Central Asia, commented: "We're in a region where 1.9 million people who inject drugs have hepatitis C and 750,000 of those have HIV. One per cent of them are accessing OST, and the average annual allocation of clean syringes is 15 each. This is a health emergency."

Background: HIV and TB in St Petersburg

The HIV epidemics in eastern Europe are particularly hard to tackle because so many of those infected are injecting drug users and, partly because of this, a high proportion have co-infection with TB and/or hepatitis C. Professor Alexander Panteleev of St Petersburg State Medical University gave a sobering account of care for people with HIV/TB co-infection in the city.

In global terms, Russian TB prevalence is not especially high. Though TB is ten times more common than in western Europe, its prevalence of 60 people with active TB per 100,000 population is ten times lower than the prevalence in South Africa or the Philippines (TB is endemic in south-east Asia).

Additionally, TB prevalence in eastern Europe and central Asia has fallen in almost all countries in the last decade – by 44%, in Russia's case. And although the prevalence of TB/HIV co-infection has risen, from 15 per 100,000 in 2010 to 24 per 100,000 in 2017, this is largely because of the increase in HIV cases, and is now starting to level off.

But that is not the challenge Russia is facing. The health emergency St Petersburg is dealing with is caused by the intersection of two factors – an ageing population with HIV who, in the absence of ART, are now increasingly unwell, and the fact that two-thirds are or were injecting drug users, with all that implies about reaching out to a criminalised, suspicious and sometimes chaotic patient group.

Although there are 17,500 people on ART in St Petersburg now, compared with 1800 a decade ago, 35.5% of the diagnosed are now living with an AIDS-defining illness compared with 11% in 2010. In 2002, at the peak of incidence in people who inject drugs, just 10% of those had a CD4 count below 200. That figure is now 64% and 46% have an AIDS-defining illness, more often than not TB.

The degree to which the Russian HIV/TB crisis is all about linkage to care is shown by the fact that 85% of people with HIV and TB in St Petersburg have known their status for 7-10 years yet are not in care. TB care is also complicated by the fact that severely immune-compromised people often have the disseminated, systemic form of the disease rather than the pulmonary one, and standard approaches to early detection of TB do not work in people with advanced HIV infection.

Another legacy of lack of care, or rather of intermittent care and loss to follow-up, is the proportion of people who have tuberculosis that is multi-drug resistant (MDR-TB). Here the data are exceptional.

The World Health Organization defines MDR-TB as TB resistant to the two most powerful first-line drugs, isoniazid and rifampicin. It estimates that globally, 4% new and 19% of previously treated TB cases are of MDR-TB. MDR-TB is a significant cause of mortality. Globally, in 2014 54% of people treated for MDR-TB were cured while 18% died and 8% were left with continuing active TB.

In St Petersburg, the proportion of people with HIV and TB who had MDR *rose* from about 40% before 2011 to 70% since 2013. Nearly a quarter of people with HIV and MDR-TB live less than a year and half die within three years. And Russia's mortality rate is not the worst: 7.3 out of 100,000 people die of AIDS-defining TB, but the rates are 8.7 in Ukraine and Azerbaijan and 9.9 in Turkmenistan.

Professor Panteleev said that there were three factors that had combined to produce something for which for once the phrase 'perfect storm' feels appropriate.

Firstly, the lack of social care for injecting drug users and people with HIV meant they dropped out of whatever systems there were, and they were very hard to find. Secondly, there was a problem with medical staff who were "intolerant to socially-deviant forms of behaviour", and who lacked the training to work with active drug users. Thirdly, low levels of knowledge and education among patients and a pervasive distrust of healthcare workers

and treatments meant that people avoided seeking treatment. In Russia, despair has led to a secondary epidemic of HIV denialism, with tens of thousands of people reading HIV denialist websites and subscribing to their beliefs, in an echo of the situation in South Africa nearly two decades ago.

How does one begin to tackle such an epidemic? Professor Panteleev laid emphasis on something that became a theme during the Standard of Care meeting: although education and skilling of healthcare staff was vital, as was better social support for injecting drug users and others with HIV, there is no substitute for peer support. Russia's co-infected drug users desperately need the national, regional and local authorities to recognise the value of local NGOs who can support and train peer navigators to assist their fellows on the hard journey back towards health.

Auditing in many different health settings

Auditable guidelines can create pressure to more consistently perform across a whole range of indicators. The meeting focused on three of these: testing and treating for hepatitis co-infection, testing and treating TB co-infection, and late presentation.

Chloe Orkin, Chair of BHIVA, told the meeting: "An audit isn't a piece of research, it's a process. It's an evaluation of clinical performance, not an outcome." She introduced the BHIVA process whereby a specific topic has been chosen for audit each year since 2001. A relatively simple set of questions, based on BHIVA guidelines, and feasible for all HIV clinics in the UK to answer is sent, which asks whether clinics offer specific services and procedures – such as, for example, testing for viral hepatitis. Then a review of case notes for ten to 40 patients per clinic is done to find out if the clinic did these things in practice.

The task of deciding on auditable standards for a region with as many health systems as countries is considerably more complex.

Anastasia Pharris of the European Centre for Disease Control commented: "To say there is one model that will improve things is challenging. We have many different models of care; even within countries models differ between urban and rural settings and specialised and non-specialised settings. PrEP and harm reduction, for instance, may be delivered in many different ways. We need to be focusing on where we can get to in Europe, rather than on how to get there."

Alex Schneider of EATG warned against audit benchmarks that were over-detailed or required doctors to ask for information that patients might feel reluctant to give.

"People testing for HIV or returning for treatment, if they are sexually active, should receive automatic STI tests," he commented. "In Germany this gets done, but in Switzerland you have to ask, and also, because almost the whole country patient group is included in the Swiss HIV Cohort, doctors are required to ask patients about sexual risk behaviour and condom use. This is a potential disincentive for patients to come forward. We must not let the requirements of research inadvertently introduce stigma."

Manuel Battegay, ex-EACS President and current chair of its guidelines committee, said the task of developing common standards was complicated in Europe, owing to the multiple morbidities and co-infections people might have. This was due to the ageing of the HIV-positive population, with the result that treatment choices became more difficult for physician and patient alike: it was no coincidence that in a recent study of how many other specialists people with HIV might interact with, nephrologists – kidney specialists most likely to be involved when drug interactions happen – were at the top of the list.

The inability of clumsy, vertically organised health services to deal with people with complex and varied needs is as much to blame as stigma when it comes to the failure to provide treatment to those who need it most. This failure cannot be allowed to continue, Elena Vovc of WHO told the meeting. In central Asia, 2018 figures show that about three-quarters of people with HIV are diagnosed, but only 42% start ART and 27% are still on ART and virally suppressed a year later.

The proportions are worse in people who inject drugs: 27% start ART and 19% are virally suppressed – though this is better in people receiving harm-reduction services, with 60% in care and 40% on ART.

However, this is an improvement since a 2010 study which found that less than 1% of people who inject drugs in the region had started ART between 2004 and 2009. But it is clearly not enough and has allowed co-infections to thrive: the proportion of people with TB who are co-infected with HIV grew from 3.7% in 2004 to 12% in 2017.

Despite relatively high rates of testing, late diagnosis continued to be a factor too, with 50% of people with HIV in the region diagnosed late, and 66% of people aged over 50.

Current EACS President Jürgen Rockstroh said that guidelines could exert beneficial pressure to increase the use of specific therapies to prevent or reduce co-infection. It was a scandal, for instance, that TB prophylaxis with the drug isoniazid was taken by nearly a million people in Africa (400,000 in South Africa alone), but only about 60,000 in the whole of the rest of the world. In the Temprano study, isoniazid prophylaxis reduced mortality by nearly 40%

even in people not taking ART, and 52% in people taking it. TB prophylaxis is a measure that could easily be extended to, for instance, prisoners with HIV in eastern Europe.

Another area where audited guidelines might exert pressure was direct-acting antivirals (DAAs) for hepatitis C. Several studies in Western Europe have shown reductions in hepatitis C prevalence or new infections when DAAs were used as widely as possible. A programme in Iceland treating all injecting drug users has reduced prevalence in this population from 43% to 12% in just two years. This was facilitated by it being a small country with only one addiction centre, but similar reductions have been achieved in Switzerland in men who have sex with men, where in 2016 147 chronic and 31 new hepatitis C infections were diagnosed in gay men but only a year later 12 chronic and 16 new infections were seen. Similar reductions have been seen in Spain, where 82% of people with HIV/hepatitis C co-infection have taken DAAs.

Positive results like this can be used as benchmarks in audits to encourage similar practice.

Using physician expertise

Elena Vovc said that before deciding what should go into an audit, some basic questions had to be asked: Is the intervention available? What is its current coverage? Does its implementation meet basic quality standards? And is it effective or has changed practice? Britain's Mike Youle concurred: "In a way, you have almost to decide what areas of practice need improving before you even audit them."

Several guiding themes emerged that suggested answers to these questions. One was that HIV physicians should not underestimate their influence when it comes to interventions of proven efficacy such as harm reduction: "We may need to be even more explicit about our support for harm reduction," was the comment of Jens Lungren, director of the European research collaboration CHIP.

Audit data can be used to educate specialists from other disciplines such as TB treatment and drug addiction, but the political situation in some countries is difficult, with Adrian Streinu-Cercel mentioning that the availability of opiate substitution therapy had actually declined in Romania since it joined the EU.

"It is a scandal across eastern Europe that we don't have harm reduction implemented at scale," commented Michel Kazatchkine. "When there is a conflict between legislation and public health, it is legislation that should be changed. The contribution of doctors is to say to others; 'We can all reach this standard in Europe'".

He criticised, to some extent, WHO for not being bold enough in its published standards for harm reduction, which have not had a major revision since 2012. "Where are there mentions of safe injecting rooms? Naloxone for overdoses? Heroin-assisted therapy?"

Health systems and insurance companies are often afraid that introducing new treatments such as hepatitis C DAAs and PrEP will cost too much. A number of European health systems, such as the Czech one, are resistant to the introduction of DAAs but even in Germany, Jürgen Rockstroh commented, "there have been strong worries from the insurance companies that suddenly everyone will get diagnosed and this would cost a lot." There needs to be better education about the cost-effectiveness of interventions such as PrEP, the Iceland DAA programme and Portugal's decriminalisation of drugs.

Sometimes local action within the workplace can be more quickly effective than slow political change. Chloe Orkin, reporting from the meeting's workshop on late diagnoses, said: "If you see a patient who's had a late diagnosis from another specialism, such as dermatology, then offer some teaching."

Using community and patient expertise

Another theme that came through was the added value of working with the community. Alex Schneider said that civil society activism is a driver of change, and the difference an NGO can make was illustrated by the work of the website www.pereboi.ru, which, growing out of a web forum for people with HIV, allows people with HIV to report drug stockouts, denials of treatment, and so on. It asks patients to report if they have:

- Been refused a drug to treat HIV, TB, or hepatitis C;
- Suddenly had a change in treatment regimen or formulation (e.g. syrup instead of pills);
- Had a fee demanded for tests for hepatitis/HIV;
- Been issued drugs for a shorter time than usual;
- Have not had tests for CD4 and viral load.

Five hundred and nine people contacted the site with complaints in 2017 and 284 in 2018. "All problems were resolved in one way or another," commented Alex, "and pressure from the website led to the introduction of sofosbuvir for hepatitis C." However, he noted that out of 2634 HIV NGOs in the European region, only 263 were in eastern Europe and 259 in central Europe.

Dagmar Hedrich of the European Monitoring Centre for Drugs and Drug Addiction commented: “We should task-shift to peer workers close to the populations as this is the sole method that seems to reach new people and gets them linked to care.” Michel Kazatchkine praised the positive role of Peer Navigators (“patient Personal Assistants”), which had been proven in Africa.

Hedrich also commented: “We need to make prisons part of our strategy.” This was another theme that emerged during the meeting. The role of incarceration in the HIV epidemic in eastern Europe is probably even more important than it is in the US black community. On the one hand, prisons are both dumping grounds for many of the most vulnerable people with HIV, especially drug users, and also amplifiers of infection, especially of TB. On the other hand, prisons represent an opportunity to bring hard-to-access people into care and to audit performance, especially in longer-term inmates.

Towards formulating a Europe-wide audit tool

The meeting broke into three breakout workshops on hepatitis co-infection, TB co-infection, and late diagnosis to start formulating specific audit questions. The hepatitis workshop produced a detailed list of suggested questions both on clinic standards in general, such as availability of vaccines and drugs, whether they are reimbursed, criteria for receiving hepatitis C treatment and so on, and also more detailed questions for case note reviews – on, for instance, tenofovir for people with chronic hepatitis B, screening for hepatitis delta, and so on.

The TB workshop also listed suggested questions: was TB therapy terminated prematurely? Are antiretrovirals for HIV available in the same centre as TB treatment? Are there facilities for directly observed TB therapy?

The late presentation workshop suggested questions about, for instance, the HIV tests actually used, whether the testing protocol (e.g. insisting on a confirmatory Western Blot test) meant that people disappeared before infection was confirmed, and so on. However, it was recognised that late diagnosis was an area in which the clinical history that led to the late diagnosis might not be easily available to the HIV clinic and an audit on late diagnosis would be particularly focused on improving communications between, for instance, HIV and STI services, addiction, hepatitis and HIV services, primary and secondary care, and so on.

The next step is for EACS to set up an audit working group to generate a simple, non-technical list of audit questions in the three areas identified at this meeting – hepatitis co-infection, TB co-infection, and late presentation – and a forthcoming retreat by the

organisation's board will expedite the process of turning the EACS audit into a biennial, Europe-wide tool for bringing standards together and reducing the gross inequality of treatment and prevention available throughout the region.

Reference

The EACS 2019 Standard of Care meeting website is at www.eacsociety.org/conferences/standard-of-care-meeting/standard-of-care-2019.html, where you can find the programme and all presentations.