UK Health Security Agency

National Strategic Group for Viral Hepatitis

Minutes of meeting held on 7 March 2023

Nobel House, London: 10am to 3pm

Contents

Attendees and apologies

Attendees

Members	Invited presenters and observers
Will Irving (WI, Chair)	Daniel Bradshaw (DB) *v*
Mark Gillyon-Powell (MGP)	Ruth Simmons (RS)
Samreen Ijaz (SI)	Koye Balogun (KB)
Peter Vickerman (PV) *v*	Ross Harris (RoH)
Caroline Sabin (CS)	Stuart Smith (SS)
Matthew Hickman (MH) *v*	Graham Cooke (GC)
Mark Aldersley (MA) *v*	Gabriel Gurmail Kaufmann (GGK)
Daniela De Angelis (DDA) *v*	Vanessa Hebditch (VH)
Steve Taylor *v*	Beatrice Emmanouil (BE)
Helen Jarvis (HJ)	Annelies McCurley (AM) *v*
	Rachel Roche (RR) *v*
	Emmanuel Musah (EM) *v*
	Ahmed Elsharkawy (AE) v
	Sharon Hutchinson (SH)
	Sarah Arnold (SA)
	Zoe James (ZJ)
	Daniel Thomas (DT) *v*
	Gillian Armstrong (GA) *v*
	Josie Smith (JS) *v*
	Rhiannon Drakeley (RD) *v*
	Amber Newbigging-Lister
	Ahimza Nagasivam (AN) *v*

Secretariat: Iain Hayden (IH)

Apologies

Graham Foster	Sema Mandal	Iain Brew	Mike Gent
Aneesha Noonan	Chantal Edge	Philippa Matthews	Victoria Mathwin
Sarah Hart	Eleanor Barnes		

1. Welcome, introductions and membership discussion

The chair welcomed all those in attendance, there was a round of introductions and apologies were given.

The reviewed terms of reference (ToR) have been circulated since the last meeting for comments. Those returned have been incorporated and the final draft circulated ahead of the meeting. This draft was approved by the group.

Suggestions of further stakeholders that should be involved in National Strategic Group for Viral Hepatitis (NSGVH) discussions from last meeting have been approached and invited.

2. Minutes of previous meeting

WI raised item 5.4.1 should be amended to highlight the audit was incomplete and the reasons for low compliance to guidelines were due to difficulties in guideline interpretation and application.

Actions not covered elsewhere in the agenda

Action 1: VH raised the British Liver Trust are working with colleagues to set up a hepatitis B virus (HBV) patient group and this is in progress.

Action 6: The HBV in England report has been published and thanks were given to members of the group for their comments. This report is expected to now be completed annually.

The remaining actions have all been completed or are on the agenda as items.

3. Updates on project and programmes quick fire update

3.1 HBV care and treatment subgroup

WI reported this subgroup of the NSGVH was set up and minutes of the first meeting have been circulated. The first meeting focused on hearing from stakeholders and setting the groups ToR, scope and potential workflows. The group ToR are to be amended and will be re-circulated with another meeting due in April to continue discussions.

The call for a HBV treatment guideline based on an absolute level of HBV DNA was raised and that the British Viral Hepatitis Group (BVHG) would be well placed to produce these recommendations.

MA stated this will be taken forward noting this will need co-adoption with gastroenterology colleagues. The importance of supplementary economic analysis and service planning to support such a decision was stated. These topics and actions will be picked up through the NSGVH HBV treatment subgroup where BVHG chair Patrick Kennedy is co-chair.

3.2 Health Protection Research Units (HPRU) modelling on estimating HBV/hepatitis C virus (HCV) incidence and prevalence

MD set out the goal of the modelling workshops, to identify and make plans to obtain metrics to monitor World Health Organization (WHO) elimination progress. These will be discussed over 3 days, for hepatitis B, hepatitis C and HIV. The main metrics expected to be reached through modelling will be incidence and prevalence.

The devolved administrations (DAs) would value either attending of being briefed on outcomes of these meetings to feed into cross UK work and metric alignment. The meetings will dovetail with DA work to inform and support reaching a consensus or justifying differences.

Once the agendas are set they will be circulated to the DAs to decide where it is most valuable for them to join.

Action

DAs to be invited to modelling meetings once agendas are firmed up.

3.3 Devolved administration deep dive on WHO elimination indicators

This agenda item was combined with the Item 3.2.

Item 5.5.1 EPIToPe was moved up the agenda

MH presented an update on evaluating the population impact of hepatitis C direct acting antiviral treatment as prevention for people who inject drugs (EPIToPe). The aims were to test the hypothesis of hepatitis C treatment as prevention. This followed on work from theoretical models and builds empirical evidence to feed into further models for intervention effectiveness.

There was evidence of a substantial reduction in chronic HCV prevalence reduction and treatment intensity was associated with an intervention effect. The methods from EPIToPe can be used to estimate the probability of reaching WHO elimination targets.

There were discussions on the data sources and differences between Tayside and the other regions. Current outcome measures are reliant on the Unlinked Anonymous Monitoring (UAM) survey and Needle Exchange Surveillance Initiative (NESI) in Scotland which only represent prevalence in PWID in services. Expansion of outcome data sources is underway which need to capture other populations. Data from the NHS England needs assessment study will hopefully feed into this study.

The group discussed the inference between trends of HCV prevalence matching incidence. It was suggested that some of the proxy measures for incidence (positivity from unlinked anonymous monitoring (UAM)) may be underpowered in isolation to detect reductions and combination data sources and modelling will give better estimates of incidence.

Empirical evidence will be needed to demonstrate the assumption that prevalence trends equate to incidence, as currently this is only assumed through modelled insights.

3.4 Hepatitis E virus

SI gave an overview of the HEV work programme being developed, there being about 1,400 symptomatic cases per year in England.

There is a cross-government working group with membership from UK public health agencies, the Animal and Plant Health Agency (APHA), the Department for Environment, Food and Rural Affairs (DeFRA) and the Food Standards Agency (FSA). Chronic hepatitis E is the area of largest concern in UKHSA and the following areas for consideration were raised:

- possible underdiagnosis of chronic hepatitis E

- insufficient follow up of cases for sustained virological response (SVR)
- factors associated with relapse and treatment failure and the limited options available in these cases

The work programme's aims are to give estimates of numbers of chronic hepatitis E cases, describe the characteristics and outcomes of cases along with parameters associated with relapse and treatment failure.

There is a plan to set up a surveillance programme between Birmingham reference laboratory, second generation surveillance system (SGSS) and sentinel surveillance of hepatitis viruses. The model used to collect HDV data was commended and suggested as another option using the Clinical Virology Network.

Rat hepatitis E virus can infect humans leading to chronic hepatitis and cirrhosis in immunosuppressed patients. Cases have been reported from Hong Kong, Canada and Spain. Current assays in use won't detect this strain.

Sampling of study populations are being set up with new assays to specifically detect rat hepatitis E virus (HEV) in:

- HEV IgM & IgG reactive but HEV RNA negative
- exploring sample collection in those with occupational exposures to rats
- NHS Blood and Transplant (NHSBT) are planning a study in blood donors with Oxford University

There has been a study indicating 15% of rats on a farm were positive for HEV.

It was raised some public and patient guidance and communications might need updating about the risks around hepatitis E. This will be followed up outside the meeting with the British Liver Trust.

Whilst HEV is an important issue, numbers per centre are very small and there were predicted difficulties asking local clinicians to find resources to interrogate their own systems. Central resourcing asking clinicians for data on several cases was a preferable surveillance method.

With chronic hepatitis E, immunosuppressed individuals will often test negative for HEV anti body, which is the test commonly undertaken to detect it.

The group discussed transmission routes through diet and transfusion suggested diet would likely make up the largest source, work to detect and stop transfusion-based transmission only would not be expected to have a large impact on reducing chronic hepatitis E cases.

The Liver Foundation Trust were put forward as a potential funder through their pump prime fund.

3.5 Hepatitis D Virus (HDV)

WI gave an update on a project to define hepatitis delta epidemiology and disease burden in the UK. Ten laboratory sites have been identified who undertake HDV testing and have provided data. Testing from private laboratories is not well understood currently.

One thousand and sixty-six patients have been identified as HDV positive in the last 10 years. Next steps are for clinicians to provide clinical data and co-infections to ascertain clinical characteristics, outcome and treatment summaries.

BCB Medical have agreed to set up a database in UKHSA to allow respondents to complete this data, although there are some governance issues to work through from hospitals that do not already hold contracts with BCB Medical.

This work can help facilitate recruitment of UK patients into international clinical trials for new treatment agents.

4. Break

5. Update on Hepatitis C virus

5.1 General update from NHSE

MGP gave an update from the NHSE HCV elimination programme progress so far and upcoming work. Seventy-four thousand people have been found and treated so far.

There has been a 102.1% increase in HCV testing in drug services

One hundred and forty percent increase in number of people accessing treatment

Thirty-seven percent reduction in deaths from HCV and 52% reduction in liver transplants.

There needs to be a push to reach people who are unaware of their HCV risk and asymptomatic. This is hoped to be achieved using the at-home testing portal, using primary care, prescribing and dispensing HCV treatments in the community and emergency department (ED) testing.

Work needs to continue in the known at-risk populations, a recent prison high intensity test and treat (HITT) found 26 out of 900 tested were still RNA positive.

The at-home testing portal will be going live towards the end of April, for use outside drug and alcohol or sexual health services.

Investing to set up services across all primary networks will cost around 5 million over 3 years, assurances are needed from prevalence data that this will capture enough cases.

Other options exist using more targeted approaches for practices with higher rates of at risk populations such as high rates of migrants from more endemic countries.

There is variability in performance in time to treatment. A target of 4 weeks to start treatment attached to Commissioning for Quality and Innovation (CQUIN) targets is being implemented to incentivise this.

Finding cases lost in the system and lost to follow up will need support from UKHSA to help identify and try to engage these patients through their operational delivery networks (ODNs).

An update to staffing was given:

- Professor Graham Foster, National Clinical Lead stepping down with a new appointment to be made soon
- a new clinical lead for primary care Dr Aneesha Noonan has been appointed
- Specioza Nabiteeko, Lead for Primary Care and London Elimination, will be away for 6 months

There was discussion on the CQUIN targets, that even if trusts don't choose them they will still be monitored and scrutinised. There were mixed reactions from sites and some have requested support to achieve these targets and the elimination programme has then supported to advise on optimal delivery.

With the contract on drug procurement ending in 2024, work is underway to discuss how to continue procurement after this date.

5.5.1 HPRU updates on HCV projects from Bristol

Bristol's presentation was moved up the agenda. PV gave an overview of ongoing work from the Health Protection Research Unit (HPRU) Bristol and a National Institute of Health Research grant consisting of several workstreams:

- a systematic review of case-finding initiatives in persons who inject drugs (PWID)
- costing of case finding initiatives in 4 areas of England
- modelling of HCV transmission in PWID

Details were given about the model structure which was stratified by areas people can access case-finding. The model was parameterised using the UAM survey, UKHSA sentinel surveillance and treatment databases.

The model can create cascades of care for each testing setting and operational delivery network (ODN) by year. Estimates from prison settings were displayed for linkage to treatment, time to treatment and the sustained virological response (SVR) rate.

How the model was calibrated in different settings using Bristol's PWID treatment numbers was displayed. The model can project the prevalence of chronic HCV in the community and for 2022 the model prediction of 11% in Bristol was a close match to that from the Needs assessment of prevalence 10%.

Predictions from the model suggest an 84% reduction in chronic prevalence between 2015 and 2030 and 83% reduction in incidence both meeting WHO targets.

The SVR rates in prisons seemed quite low compared to other settings and this could be an underestimation due to incompleteness of the SVR 12 month flag. There were discussions how this could be addressed with proxy measures such as further RNA tests.

There were discussions about the population being modelled under the definition PWID, whether this needs to include only those currently injecting or if it needs to be broader including those on opioid agonist treatment (OAT) and previous injectors. A tighter definition using only current or recent injectors might make it more difficult to achieve elimination due to the higher risks of infection or re-infection. Those defined as PWID still infected now likely have different and more complex barriers to treatment to those already treated. To accurately project future trends an understanding of these qualitative aspects might need to be considered in the model. These can be included into future iterations of the model as further data becomes available.

5.2 Antenatal testing for HCV

MGP gave an update of the status of testing for HCV alongside the national antenatal screening programme. There is a wide set of stakeholders who would support its implementation. There is limited data on the prevalence of HCV in the antenatal population, which makes it difficult to estimate its effectiveness as part of an amendment to the screening programme.

A time limited testing initiative has been suggested, with universal opt out testing thought to be best to minimise stigmas from risk or more targeted testing. Feedback has been received from the Research Innovation and Development Advisory Committee (RIDAC) which is being worked through for May to progress further.

The group discussed the concerns that need to be addressed including setting up a monitoring system that doesn't increase the workload of the antenatal team. Requesting data from laboratories directly was suggested as one option.

The risk of mother to child transmission of HCV was discussed and the need for a HCV testing programme in the antenatal population. There was support from the group to continue efforts to get the programme in place.

5.3 ED opt out testing

MGP summarised the blood borne virus (BBV) testing in emergency departments and results received to date. HIV has been implemented first across most live sites, with HBV and HCV testing now implemented in 18 out of 34 and 23 out of 34 sites respectively. 'Blocking' has been introduced to stop regular testing of repeat attendees to ED.

A webform has been rolled out to improve monitoring and several abstracts submitted for presentation at British HIV Association (BHIVA). A further 30 areas have had funding allocated to begin HCV testing although funding for HIV is still pending confirmation. There is a plan that Integrated care boards will contribute 12.5% to costs in the future to support the testing of HBV.

A lag between those testing positive through this initiative to getting onto treatment was raised. If ODNs are unable to contact services in 4 weeks, they are now instructed to hand cases over to the find and treat programme.

There were discussions around the use of the RNA positive to antibody positive ratio as an indicator for proportion of people already treated and progress towards HCV elimination.

RS presented a plan to evaluate the ED testing. Potential indicators have been mapped to the care pathway and data from London was shown as an example. Linking the data to other datasets can differentiate between those newly and previously diagnosed through the programme.

Bristol will be undertaking a cost benefit evaluation to identify costs per case found and on prevention of further transmission.

The benefits of the programme to find previously diagnosed cases and opportunities to treat them again were discussed. Work is needed to identify why these people were lost and not treated initially to help improve current pathways.

These tests are only being taken for attendances where blood is being collected in ED and can be linked to clinical coding associated with the visit to see reason for attendance. This is currently being looked at. This was identified as about half of all ED attendances.

The group discussed the proportions newly diagnosed from various groups and clarified that homelessness was defined through the NHS spine. The low numbers of newly diagnosed people in PWID could indicate the successes of case identification through drug services.

There were further questions raised about the population that is being tested through the programme and their risk status. Work is ongoing to further characterise the population and it was flagged to be a challenging task. Further discussions can be had on what other links to HES and clinical coding risk should be investigated to try to characterise them, such as for skin and soft tissue damage.

5.4 HCV Needs assessment

BE presented on the needs assessment data. This project was to assess the burden of HCV in people with addiction problems in England. 11,000 people engaged in addiction services were tested across 200 sites over 6 to 8 weeks across England. The data is still provisional and data is still incoming so only high level summaries are available so far.

Overall diagnosed prevalence from those tested was 6.90%, 10.73% for current injectors and 1.95% in others. There was variation identified across the ODNs and addiction service providers.

The incidence estimate was calculated at 1.5 per 100py based on the acute infections found. This estimate will be more robust once the follow-up testing is undertaken.

Some concerns were raised with the sampling following some qualitative studies from the HCV Trust. Some ODNs were reported to have used the study as an opportunity to find and test those currently not tested rather than random sampling. Co-factors have been collected to help characterise and report on population variances.

The value of the data and study were commended by the group. The value of the re-infection metrics will be particularly valuable as a marker of incidence.

Requests have been received to UKHSA hepatitis section requesting data on local testing to see how this compares to micro-elimination criteria. Data can't be shared by the team on non-HCV cases, so this raised a potential gap in availability of data at local levels from Gilead.

5.5 Web testing portal

MGP gave an overview of the web testing portal being launched to provide testing to individuals at home:

- the launch of the portal will be accompanied by targeted promotions to higher risk groups such as South Asian and gay, bisexual, and men who have sex with men (GBMSM) communities
- the web portal is currently at beta testing and has cabinet sign off
- there is minimal registration data required to request a test
- testing is only available to those in England and over 18 due to safeguarding concerns
- all positive results will be communicated directly by the ODN nurse
- personalisation of the landing page is available for individual services to use

There were discussions around the prospect of rolling the service out across the DAs. Whilst the focus has been on England rollout, conversations are in progress about how to signpost those resident outside England to appropriate services across the UK should they need it.

The British Liver Trust is eager to support the launch and brief their staff to signpost to the site after launch.

The aim of the service is to test those who won't engage with other services. There were questions raised about whether the service will achieve this or rather provide an alternative method to test for those than would otherwise get tested elsewhere. This would be a good area to consider during evaluation.

5.6 HPRU updates on HCV projects

5.6.1 Bristol – moved up the agenda

5.6.2 UCL projects

CS gave an overview and progress updates of HPRU projects at University College London (UCL). These are mostly from theme B – Reducing the burden of undiagnosed STIs and BBVs. These included:

- antenatal screening for HCV, a literature review of chronic HCV prevalence, the risk factors associated with HCV diagnoses and 3 case-finding initiatives in the population – this has fed into work trying to set up the HCV testing alongside the screening programme
- developing methods for monitoring HCV reinfection – methodology and early results are presented in the Hepatitis C in England report; a re-infection rate of 7.91 per 100PY between 2015 and 2019 was reported (the methodology needed further refinement)
- a comparison of treatment outcomes between HCV subtypes and identification of factors associated with poor outcomes
- an outbreak of HCV from Northern Ireland in a homeless population
- identifying strategies for delivering treatment to people with HCV – using national re-engagement data
- factors leading to successful re-engagement into the HCV cascade of care
- identifying effective GP tools for identifying those at risk of BBV infections
- evaluation of BBV testing in ED

5.7 Any other business

The chair gave thanks to those who presented and everyone for their contributions to the meeting. Iain Hayden is moving roles, and this will be his last meeting as secretariat to the NSGVH. WI thanked Iain Hayden in his last meeting as the secretariat for NSGVH for his efforts and the fantastic job done.

6. Actions arising from meeting

Action 1: DAs to be invited to HBV/HCV incidence and prevalence modelling meetings once agendas are firmed up.

Tasked to: MD

About the UK Health Security Agency

UKHSA is responsible for protecting every member of every community from the impact of infectious diseases, chemical, biological, radiological and nuclear incidents and other health threats. We provide intellectual, scientific and operational leadership at national and local level, as well as on the global stage, to make the nation health secure.

UKHSA is an executive agency, sponsored by the Department of Health and Social Care.

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