Public Health England

Minutes

Title of meeting	National Strategy Group for Viral Hepatitis (NSGVH)
Date	17 April, 2018
Time	10.30 to 16.00
Venue	Room 124A, Skipton House, 80 London Road, SE1 6LH
Attendees	Will Irving (Chair) Mary Ramsay (Deputy Chair) [agenda item 7.1 and 7.2] Ahmed Elsharkawy (University Hospitals, Birmingham) Helen Bennett (NHS England) [agenda item 4.1] Peter Huskinson (NHS England) Graham Cooke (Imperial College London) [agenda item 6.2] Peter Vickerman (Bristol University) Mark Perkins (NHS England) Matt Hickman (Bristol University) [agenda item 6.1] Giri Shankar (Public Health Wales) [agenda item 3.4] Charles Gore (Hep C Trust) Ginny Belson (DHSC) Sema Mandal (PHE) [agenda item 4.1] Helen Harris (PHE) [agenda item 3.1] Dan Bradshaw (PHE) Richard Tedder (PHE) [agenda item 7.3] Samreen Ijaz (PHE) Steve Taylor (PHE) Mike Gent (PHE) Ross Harris (PHE) [agenda item 3.2 and 3.3] Koye Balogun (PHE) Daniela De Angelis (PHE) [agenda item 3.2] Emma Kain (PHE) Andy Earnshaw (PHE) Ruth Parry (secretariat)
Dialed in	Lucy Jessop (Northern Ireland) David Goldberg (Scotland) Jane Salmon (Wales)
Apologies	George Leahy Claire Foreman Iain Brew Peter Kohn Ray Poll Sarah Hart Graham Foster Peter Moss

1.0 Chair's welcome and apologies for absence
Conflicts of interest – none raised

2.0 Minutes and actions from the previous meeting

2.1 The minutes of the previous meeting were agreed as an accurate record.

2.2 Actions from the previous meeting:

Action 3.2 (for Sarah Culkin) – Arrange a further meeting of the HCV data workshop, further planning of communication with diagnostic laboratories is necessary to reassure about governance issues, encourage reflex RNA testing, get clarity on DBS testing.
WI reported that a further meeting of the HCV data workshop has been organised. WI is in the process of drafting a letter to diagnostic laboratories to ask them to report new positive results to ODNs, encourage reflex RNA testing and to find out where DBS testing is taking place and where the results are going.

Action 3.3 and 3.4 (for MG) Share list of viral hepatitis leads, who should be linked into the ODNs; go back to the hepatitis leads and request that the "workbook" is distributed to their local ODNs.
WI reported that these have both been distributed.

Action 3.8 (for Secretariat) Circulate the BBV testing algorithm with the minutes of the meeting. **Action 3.9** (for EO'M / DF / Mark (NHSE)) Supply information for the next meeting about which prisons are in which ODNs. Is it possible to see rates of testing and rates of treatment on a prison-by-prison basis?
WI stated that these relate to HCV in prisons and there may not be an appropriate representative at this meeting to report back.
PH reported that there are now better links through NHSE representative who sits on the programme board, and work is being done to improve reporting.
Action: (for PH) NSGVH to be copied into discussions of the NHS England group focussing on prisons

Action 3.11 (for SM) Share the spreadsheet on case finding interventions with the group.
WI reported that this will now be turned into a report and shared at a later date.
Action: SM to circulate paper on existing interventions (to replace the spreadsheet) when updated.

Action 3.12 (for WI) Organise a meeting with senior people in drug service providers, for example medical directors, from the main providers (or Collective Voice) and commissioners.
WI reported that this has been organised. The aims of the meeting and how to achieve them will be discussed in item 4.2 of today's meeting.

Action 3.14 (for WI) Invite RCGP liver disease champion to next meeting.
WI reported that this has been done. Jez Thompson is dialling in to today's meeting.

3.0 HCV monitoring progress towards elimination in England

3.1 Hepatitis C in England report (Helen Harris)

HH provided an overview of the report which monitors progress towards HCV elimination and provides public health recommendations for where further action is needed to make progress.

As treatment rollout continues it will be important to measure equity in access to treatment. Data for this will come from the National Treatment Monitoring Dataset.

Discussion:

- Areas for improvement that the report highlighted were agreed: prevalence in PWID, incidence, adequate provision of needle exchange, individuals being aware of their infection, and testing in prisons.
- The timeliness of indicators was discussed; some indicators do not yet demonstrate an effect from the current interventions which could impact on the success of the system currently in place. It was suggested that alternative indicators could be considered which would enable more dynamic feedback.
- Data on individuals' disease stage and whether they are injecting drugs concurrently with treatment will soon be available from the Treatment Monitoring Dataset, this will also allow projections of people having end stage liver disease (ESLD) and hepatocellular carcinoma (HCC) in future based on the numbers being treated now.

3.2 Key metrics for monitoring progress (Ross Harris)

RH presented a model which predicts the population outcomes of treatment programmes and the potential to achieve elimination. The model considers three scenarios:

- Base case – if nothing else changes with constant rate of treatment
- With impact on incidence from treatment as prevention effect
- With improved diagnosis and treatment

The model results suggest that with scale up of treatment, chronic prevalence will decrease fast, and if treatment as prevention also works the impact of this on incident chronic infections will be large with WHO elimination targets being hit. Possible measures to monitor the hoped for 50% reduction in chronic prevalence over the next 2 years include a 1/3 reduction in chronic prevalence in UA and reductions in markers of recent incidence, both of which are difficult to interpret. Prevalence in recent injectors may also be a useful measure.

Further data needed to improve the model:

- More up to date data and modelling on numbers of PWID
- Data on who is being treated by disease stage and risk group
- Understanding the impact of treatment and other harm reduction interventions in PWID to understand transmission and interpret what is happening in UA data
- Information on how case-finding interventions will be conducted and who they will identify

Discussion:

- It was asked whether the increased likelihood of treatment for people with fibrosis was considered in the model, although ODNs are now treating regardless of fibrosis stage. It is not considered directly, but those older are more likely to be diagnosed and also more likely to have advanced liver disease. The Treatment Monitoring Dataset will allow us to monitor this in future.
- DG suggested that it may be useful to separate ESLD and HCC in the model. Scotland has seen a 30% reduction in HCV-related ESLD but a dramatic increase in HCC.
- It was suggested that a better understanding of what will happen after the first two years is needed, particularly the impact of variables other than treatment as these will become more important as we get closer to elimination.
- Discussion of data needed to improve the model:
    - Data on viraemia rather than seroprevalence. UAM has been testing for RNA since 2016 and is now re-testing samples going back to 2011. This will become the routine metric.
    - Access to National Treatment Monitoring Dataset. HB reported that this has been emphasised as urgent to Gem and Arden CSU and should be available within next two weeks.
    - Drug and alcohol services data to understand testing rates and seroprevalence rates.
    - SM stated that there are issues with data quality. Although there are proposed enhancements to the National Drug Treatment Monitoring Dataset, there is as yet no assurance that essential fields in the National Treatment Monitoring Dataset are completed at a level sufficient to make them usable.

Action: RH to consider separating out ESLD and HCC in the model

3.3 ODN template for estimating infected population numbers (Ross Harris)

RH presented the ODN template and an overview of its output. The template estimates the HCV infected population in each ODN, under the assumption that patients stay in the same place. The template will be put into an Excel tool which will be applied by ODNs, giving prevalence estimates and enabling better understanding of how the datasets can be interpreted. ODN data used in the template:

- HCV related ESLD and HCC from HES
- UAM survey data on antibody prevalence in PWID, going forwards will be chronic prevalence
- Estimates of number of PWID from National Treatment Agency
- Lab reported diagnoses to PHE
- Numbers treated with interferon-based treatment in the past
- Numbers treated with DAAs from NHSE

Discussion:

- AE asked whether HES data are influenced by transplant centre locations – locations of high burden are those with transplant centres. Question of whether HES data reflect patient postcode of residence or patient CCG.
- GC commented that HAARS data may be a useful addition; this contains ODN level data on HIV/HCV co-infected population.
- Discussion of inter-ODN migration and how this may affect estimates; although the retrospective case-finding exercise showed little patient migration at ODN level, the current PWID population are more mobile in some places, for example Birmingham.

Action: RH to consider potential of HAARS data on HCV/HIV co-infection
Action: RH to look into source of patient postcode in HES

Elimination plans for other nations
3.4 Wales update (Giri Shankar)

GS gave an update on Wales' elimination plans. From 2010 to 2015 Wales's BBV and Hepatitis Action Plan focussed on undiagnosed infection and improving access to treatment with £1.3 million per year committed. 2015 to 2020 Liver Disease Delivery Plan has ring-fenced £1 million per year attached.

There are various data sources to estimate HCV burden in Wales although none give definitive answer; overall, estimate 10,000-12,000 have HCV. Surveillance is undertaken through UAM, maintained by PHE and a BBV module has been added to the harm reduction database. There has been opt-out testing in prisons since 2016, where testing has increased from 8% to 33%. HCV antibody prevalence in prisons is around 10%. Wales has national ring-fenced treatment and does not have the problem of commissioner-provider split. Referrals for treatment increasingly come from prisons, GUM services and maternity services. Currently treating 800 patients a year, target is 1,000. The biggest challenges are getting a robust estimate of the burden and finding enough patients to be treated.

Wales has undertaken a number of pilot projects:

- Lookback exercise of the Wales national testing database which contains all testing data since 1996, this has been deduplicated and cleaned and will be used to link patients into treatment through contacting their GPs.
- Case-finding pilots in Cardiff and North Wales interrogated GP databases for symptoms consistent with HCV to identify patients and contact them for treatment. These yielded disappointing results, as it was difficult to contact patients and bring them in for treatment.
- Successful pilot of testing on night bus for homeless and asylum seekers, engaged with specialist GP practices to offer testing and treatment to these populations.
- A & E pilot succeeded in testing attendees but it was very resource intensive to get people tested and get the results back, and difficult to link those patients into treatment.
- Community pharmacy testing pilot. Tariffs are now being negotiated with the aim of increasing pharmacy testing.

Discussion:

- SM asked whether pilots have comparator groups and cost-effectiveness analyses. They have historical comparisons only, costs for projects are known but cost-effectiveness has not yet been evaluated.

4.0 HCV Case finding and referral

4.1 Soft system changes to support case-finding – review of table 3 in case-finding summary paper (Sema Mandal)

SM introduced the table which focuses on cost-neutral soft system changes that could be taken back by the membership of this group, as opposed to interventions which require evidence, which are summarised in the case-finding paper. The table has been adapted to focus on populations and domains and brought to the group for feedback.

Topic 1: Translating research on case-finding into policy and setting the research agenda so that it supports case-finding interventions.
Discussion:

- It was asked who evaluates whether this is being achieved overall and whether the research agenda answers the questions needed. A need to collate the knowledge gained over the next couple of years from the large amounts of activity being undertaken by pharma in addition to classical research was highlighted.
- It was agreed that an additional column should be added to the table for timescales, stating when the results from each action would be expected to roll out.

Actions:

- SM to add a timescales column to the table – short, medium, longer term for research / activity – liaising with GC / Peter Vickerman
- AE/SM to pull together action research being undertaken in ODNs
- GC/PV to pull together overview of NIHR funded projects

Topic 2: PHE support to ODNs with data. This was covered by RH in agenda item 3.3, current work is to disseminate this to ODNs.

Topic 3: Optimise surveillance for survey data. Enhancing current surveillance and surveys, for example the addition of RNA data in UAM; improving understanding of DBS testing in laboratory reports; having RNA extracts from DBS tests; potential to expand sentinel surveillance laboratory sites. This feeds into data to support case-finding nationally.

Topic 4: Awareness raising – broad professional and public. Supporting professional education initiatives, for example RCGP training modules, drug services training modules. Need a conduit for sustained promotion of these training resources.

Discussion:

- It was suggested that within the available timeframe a public awareness campaign would be more effective than educational initiatives. A letter from the chair explaining the

representation of NSGVH and requesting an awareness raising campaign by PHE was proposed and agreed. This will need to be linked to professional awareness, and a CMO letter will need to be sent along with the campaign.

Action: PH, AE, HH, SM, CG to draft a letter to Department of Health to suggest an awareness-raising campaign by PHE marketing in key sub-populations in which a change needs to be made, including a 2/3 page brief on the campaign to be attached to the letter. To be done in the next week and a half.

Topic 5: Lab diagnosis. Ongoing work to achieve direct reporting from laboratories through various methods - CQUINs, toolkits, SLAs. Tripartite letters will be sent out soon to ensure labs are aware of their responsibilities for reporting, including DBS and reflex testing.

Topic 6: Expand DBS testing provision to support case-finding. Should PHE aim to provide more DBS testing in primary care among those identified through case-finding initiatives?

Topic 7: Stakeholder engagement. Ensuring each ODN has correct representation, particularly around public health aspects of case-finding and patient advocates (that is PHE and Hep C Trust). This may need mapping of representation in different ODNs. MP reported that this may have already been done by ODNs but information is not currently made public. A peer review of ODNs is also underway. AE reported that a national mapping of drug and alcohol services is being undertaken by Royal Free, Gilead and another organisation.

Topic 8: Testing in primary care. Extra testing and referral for care has impacts on GP workload, as does the lookback exercise, and this is not covered in current contracts. Usually have national / local service specification for GPs, should we consider this in conversations with GPC to ensure we get proper engagement from GPs? A checklist for GPs on what they should be doing regarding elimination can be drafted relatively quickly but depends on other aspects e.g. workload implications to be worked out.

Discussion:

- Agreed to pick GP workload issue up in agenda item on lookback exercise.
- Contribution of primary care to elimination agenda should be revisited at a later meeting with appropriate people in the room.

Topic 9: Roll out of evidence based interventions for PWID; contractual issues – ensuring referral process and reporting results are clear in contracts; supporting pharmacies – reasonable evidence for this so should support it.

Discussion:

- PH stated that there is a national NHSE workstream on testing and treatment interventions in pharmacies.

Topic 10: Prisons. There are known implementation challenges; PHE is working with NHSE to address these. Places that are not doing well are currently undergoing annual reviews.

Topic 11: Other populations. Operational research is underway but there is no clear evidence on what we should be doing. Screening for pregnant women was discussed at the last meeting and probably will not go ahead as a screening programme but may be re-framed as case-finding. There are local studies underway which may inform interventions for MSM, homeless and migrant populations.

AOB – announced before break

CG announced he has resigned from the Hepatitis C Trust to work with the Medicines Patent Pool (MPP) in Geneva. MPP works to increase access to HIV, hepatitis C and tuberculosis treatments in low- and middle-income countries.

4.2 Roundtable meeting with drug service providers and commissioners; agree agenda and objectives

Meeting is set for 16 May 2018 in Skipton House and invites have gone out.
Three things are needed in preparation:

1. Agreement on who should be at the meeting.
2. Agreement on issues to be raised at the meeting.
3. Decision on how the meeting should be structured and what should be presented.

Discussion:

- It was suggested that commissioners were underrepresented as invitees.
- It was agreed that the meeting should present an outline of the problem and wider system work underway and invite contribution from participants, aiming to generate a dialogue and gather information on examples and enablers of best practice.
- It was asked how other drug service providers can be engaged; those attending are motivated and interested whereas we need to reach those that aren't. There was a discussion of ways of sharing best practice and the need to know what motivates drug service providers.
- It was suggested that representatives from the devolved administrations should be invited. DG informed that there is a short-life working group on diagnosis and access to care in Scotland with an upcoming meeting which PHE should be invited to.

Actions:

- WI to contact invitees to invite their contribution.
- DG to liaise so that a representative from NSGVH attends the Scottish group meeting.

4.3 Lookback exercise to re-engage previously diagnosed patients in primary care by sharing PHE lab reports with ODNs – update on progress (Sema Mandal /Helen Bennett)

HB gave an update of NHSE progress on providing treatment data to PHE to exclude from the lab diagnoses data held by PHE. Data sharing is currently being finalised and Arden and Gem should share the data with PHE in next two weeks, with data transfer to ODNs planned for end April/start May.

There are approximately 50,000 previously diagnosed patients on the list excluding deceased patients; once data sharing with the treatment registry has been agreed the final number will be lower.

The issue of informing GPs and what is expected of them has been the subject of discussion. Current proposal is to notify GPs that their patient has been identified and that they need to contact the ODN within 4 weeks if they know of a reason why a patient should not be contacted. This proposal will be taken to the BMA General Practitioners' Committee (GPC) meeting on 2 May, and will proceed subject to the outcome of the meeting.

FAQs have been developed, one for patients and one for GPs. All being well, ODNs will start contacting patients by the end of May. These patients can then come into this year's activity figures and go towards the target of 15,000. Comms are ready, but pending outcome of GPC discussion.

Discussion:

- The need to involve GPs in the exercise and the role of the GPC was questioned and discussed. SM responded that if not engaged, the whole exercise could be undermined and also increase the risk of IG breaches – hence informing GPs about individual patients was a Caldicott condition for data release.
- MH asked whether linkage with primary care data could be done. The response was that this would require additional permissions and research and ethics review so were outside scope of this exercise but could be explored.
- SM stated that an MOU will accompany the release of data to the ODNs, stating that this is not for research purposes but for direct patient care. A step has been put in about ensuring to check other databases including local PAS systems and local laboratory datasets for more up to date information before contacting GP. RCGP are keen to participate in communications when it goes live.
- It was asked whether capacity to treat identified patients can be ensured. HB responded that ODNs have a year to contact patients and will do this in a phased approach.
- It was asked what can be done if patients do not attend, and whether an awareness campaign could be used. Discussion of whether this could link with the awareness campaign discussed earlier, overall view was that these are different populations and the campaigns do not necessarily overlap. It was noted that under the protocol patients can be contacted 3 times, including letters and phone calls and there is no time limit for this.

Action: HB / SM to share the FAQs, GP letter and templates with GS (Public Health Wales)

5.0 HCV treatment

5.1 National treatment database (Arden and Gem) – data quality review (mandatory and non-mandatory fields); update on data sharing with PHE (Helen Bennett)

32,500 patients are on the system as of 12 April, with about 135 patients a week being added. However, around 223 patients per week are recorded commencing treatment on Blueteq, that is more patients are starting treatment than are being added to the treatment registry.

There are data quality issues relating to incomplete records; NHSE are looking into how many and what to do about them. Key fields have poor completion, including injecting route of transmission, patient postcode, likely route of transmission and patient ethnicity. Specific guidance is being written to address these gaps, on basis of 'trigger B4' which is part of CQUIN that ODNs are already aware of. More generic data quality best practice guidance is also being written and will be out in next 2 weeks. PHE will have access to the database within next 2 weeks; this will enable manipulation and cross reference checking for the lookback exercise discussed in item 4.3.

Discussion:

- Discussion of ODNs uploading data in batches – likely due to limited admin capacity within ODNs.
- Discussion of the number on the database and who they represent; 32,500 is much lower than the number identified as already diagnosed. This suggests many with positive diagnosis are not on registry, but also a need to better understand the estimate of diagnosed – the lookback exercise will help with this. People diagnosed in primary care are unlikely to be on the database. HB stated that they are aware of the gap and one of the community workstreams includes how the registry can be opened up to pharmacy and primary care so they can enter data.
- It was asked what is being done to address missing data fields. HB responded that there is a request from ODNs for additional data fields, and data completion will be put into CQUIN measures.
- It was asked whether setting of diagnosis and place of referral are on the database. They are, but incompletely recorded.

5.2 HCV NHS England strategic procurement – update on tender (Mark Perkins / Peter Huskinson)

PH provided an update on the strategic procurement process which aims to increase the numbers of patients identified and make treatment more affordable. Historically, competitive tendering for HCV treatment occurs every 6 months. During the last 6 months elements of patient case finding were incorporated into the tendering process. The latest tender has resulted in an additional 2,400 treatment slots and support for case finding.

The strategic procurement is utilising 2 price models and price structures to test the best path to eliminate HCV.

1. Revenue cap model: this is similar to the current model and includes investment from pharma to help find patients. Once the NHS England monetary level of expenditure has been reached any additional patient treatments are reimbursed.
2. Unmetered access model: the payments to suppliers are dependent on the overall number of patients cured, the average treatment price, and the individual supplier contributions to identifying patients. This model aims to encourage pharma to go further to invest in case-finding and engagement in treatment.

Suppliers will be asked for:

1. Detailed plans of elimination initiatives by group, setting, geographic coverage and outcomes.
2. Costs: capped cost per cure, reimbursement for non-cure, capped expenditure, payment tied to performance, for example equity of treatment and geographic distribution of treatment, level of investment in elimination initiatives.

The tender is a 3-stage process:

1. Round 1: initial bids submitted, evaluated and bidders are provided with feedback
2. Round 2: updated bids are submitted and evaluated
3. Round 3: final stage

Potentially all bidders could be awarded contracts depending on the content of their bids.

Discussion:

- Query, does this process maintain the need for genotyping? Bidders cannot be excluded on this basis. The bidder's elimination plans must show how they support elimination across different populations, geographical coverage and what outcomes will be achieved. Strengths of each company will complement each other and the wider system.
- The group discussed if the structure of the rate card would change e.g. to include risk groups as part of the structure of allocation. It is not possible to move away from this entirely however there will be more flexibility, if the procurement is successful.
- The question of how NSGVH can contribute to the process was raised. It was noted that there is a risk of legal action associated with the process. Participants must have no conflicts of interest and be aware of the importance of treating all bidders equally. Meetings will occur during the next few weeks including supplier briefings and a supplier and ODN event; for suppliers to gain ODN feedback.
- It was asked what group members should do if bidders ask them for information about HCV during the tender. MP responded that no comments should be made on anything relating to the procurement process. Bidders are obliged to ask questions through the formal route, that is the portal. Any data or information requested by a bidder must be shared with all bidders via the procurement portal, unless the question is about a unique idea of theirs. There is a rules of engagement document which will be circulated.

Action: HB to share the rules of engagement document with the group.

5.3 Discussion about meeting with pharma regarding case-finding proposals – dropped from agenda due to time constraints

6.0 Research to support elimination agenda

6.1 HPRU: update on year 6 and HPRU year 2 (Samreen Ijaz)

SI introduced hepatitis work being done under the 5 year NIHR Health Protection Research Units (HPRU) starting April 2014. Hepatitis projects fall into three HPRUs: UCL/LSHTM/PHE BBV and STI; Bristol University/PHE Evaluation of interventions (a cross-cutting HPRU); and University of Liverpool / LSHTM/PHE Emerging and zoonotic infections HPRU.

SI updated on BBV and STI HPRU (UCL/PHE/LSHTM) hepatitis projects underway:
Theme B (identifying patients): seroprevalence in A and E attendees; qualitative work on feasibility of opt-out testing in A and E; evaluating current practices for testing migrants in primary care (including refugees and asylum seekers); evaluating HCV self-sampling kits; planned pilot study of birth cohort screening for HCV.
Theme C (care and management); cascade of care for HBV and HCV; qualitative studies of HCV self-sampling and testing and access to care; virological work looking at HCV treatment resistance; modelling

Have found that money is very fixed, and it is hard to be flexible to respond to newly emerging priorities which has been fed back. The next HPRU is delayed, with the current HPRU funded for an extra year to translate research into policy.

Discussion:

- SI requested support from NSGVH to define hepatitis research priorities and strategies going into HPRU 2 in 2020. Previously PHE had an oversight group who would support this but this is currently missing. It was agreed that NSGVH is happy to do this.

6.2 NIHR grants – update on PRP and EPIToPe and other current or proposed grants – Graham Cooke and Matt Hickman

GC presented NIHR interest in putting out a themed call for elimination related research. The call needs to be coherent, align to priorities, and ensure no duplication. Excess projects from HPRU could be put through to this as part of an overall plan.
Money would be allocated from existing streams, some of which cover relevant areas. There is potential to point out that these priorities need to be addressed soon for elimination plan. NSGVH can start to map out priorities and sources of money, with a challenge of aligning to NIHR priorities as much as possible while maintaining our own priorities.

Action: All to contribute their agenda for research (starting in a year for 2 to 3 years) needed to meet the elimination agenda, ideally matching this to NIHR streams of funding.

MH provided an update of work being done under the NIHR programme grant: evaluating the population impact of hepatitis C direct acting antiviral treatment as prevention for people who inject drugs (EPIToPe):

- Experiment in Tayside scaling up treatment to get prevalence below 10% and incidence below 2%. So far this indicates that treatment as prevention is working.
- Method development for a natural experiment, developing statistical and mathematical models to evaluate the effect of scaling up in one place compared to slower scale up in others.
- Working with PHE and Health Protection Scotland to support ongoing surveillance of chronic HCV.
- Nested qualitative study to look at barriers and facilitators to scaling up treatment.
- Designing a natural experiment in England to make the most of variation between ODNs to strengthen the evidence of how treatment as prevention works.

MH updated on cross-cutting HPRU on evaluation of interventions (Bristol University/PHE) – viral hepatitis, cost effectiveness modelling and evidence synthesis are key areas of this: Projects underway:

- HBV and HCV case finding in A&E.
- Birth cohort screening for HCV.
- HepCATT – publish cost effectiveness model and provide to NHSE and ODNs to understand how many nurses needed per clinic / user are needed to enable massive scale up of treatment.
- HCV screening among MSM and its link to PrEP.
- Cost effectiveness models of different novel interventions for scaling up treatment. Aiming for a generalised model so that people can plug in parameters to get output.
- Combined model of all different interventions, which can be used to inform ODNs and NHSE on best combination of interventions.
- Prison exposure to HCV.

7.0 Update from PHE (public health lab and epi) on hepatitis priority issues

7.1 HAV and HBV vaccine shortages (Mary Ramsay)

MR updated on the situation regarding vaccine shortages. Some manufacturers are almost back to normal production but others aren't and there is a backlog so vaccine supply restrictions are still in place. HBV recovery plan has been published, which recommends phased supply to areas at highest risk over the next year.

7.2 HAV outbreak in MSM (Mary Ramsay)

This is now under control and closed as an outbreak situation, central stock of vaccine was made available for this.

7.3 HEV (Richard Tedder)

RT shared feedback from FSA hosted meeting with European Food Standards Agency in Amsterdam in March. There is no statutory notification of HEV across Europe, and patchiness

of information on the continent. UK, middle European countries and Norway have surveillance but Belgium, France, Spain and Eastern Europe do not. Lots of food supplied to Central and Western Europe is sourced from Eastern Europe. Frustrations were shared that HEV was not notifiable, with HEV now the most common cause of viral hepatitis in many countries. There was discussion of how to render food safe and whether this should be by cooking (and if so, which temperatures were needed) or by preventing HEV entering the food chain.

Many parameters of HEV biology in swine are not known. There was very little awareness of the problem of persistent HEV, and curiosity about use of convalescent plasma. RT stated that the overall meeting outcome was a worthwhile network of collaboration and discussion.

8.0 Consideration of a NSGVH work plan – carried forwards

8.1 Future work plan and priorities

8.2 Focus of next meeting – HBV priorities?

9.0 Any other business – no time to discuss this

9.1 Updates on other key meetings /reports