**Supplementary data**

**Figure S1: Patient flow during HepFriend intervention** POCT; point of care test for HCV antibodies, DBS; dried blood spot test for HCV RNA

Evaluation of a new patient

Treatment initiation and subsequent visits 0,2,4,8,12 weeks

Post treatment visits 12 weeks and 1 year

Peer worker adherence support

Peer worker support for visits

Initial Contact in outreach location

Initial Contact in outreach van

POCT

(+POCT): DBS test and Fibroscan

+DBS: Active Follow up contact

Neg DBS: Minimal or no follow up contact

Neg POCT: Continue awareness raising

**Costing Analysis: Additional Information**

The Find&Treat team depend upon the UCLH offices for support in delivering their services, including management, finance and administration. The incremental costing therefore initially focused on the additional resources required by Find&Treat and Groundswell to undertake the HepCare intervention. Costs were collected for the cost of screening, treating and supporting patients using the new model of care (primary care and outreach settings, mouth swabs, DBS tests and fibroscans, peer support). Data collection took place in June-August 2018. Incremental costings, however, usually underestimate the costs of administration and other overheads, and are therefore less useful in terms of generalisability because they assume that infrastructure exists and is sufficient to absorb the extra workload. Our costing therefore also attempted to estimate the proportion of the administration and equipment costs incurred by HepCare: the main inputs to be costed at the higher organisational levels were personnel, office use and supplies.

Costs for training were obtained from UCLH and the London Working Group. The lifespan of capital items was estimated through staff interviews, and start-up costs were annualised over the projected lifetime of the project. Staff time allocation was estimated per visit type through staff interviews.

**Figure S2: Sub-model of disease progression stages** Once infected, individuals progress through the Metavir stages of fibrosis F0 to F4 (which is compensated cirrhosis). From compensated cirrhosis the disease can progress to either Hepatocellular carcinoma (HCC) or decompensated cirrhosis. From decompensated cirrhosis individuals can undergo a liver transplant or progress to HCC. Disease related death is assumed from decompensated cirrhosis, HCC and post/liver transplant categories. Treatment is possible from all disease states up to and including decompensated cirrhosis. Once treated an individual enters the respective disease state in the SVR category. Disease progression upon SVR is possible for those in the F3 category and beyond.



**Model Equations**

**Infection and treatment sub-model**

This sub-model stands alone and can be used to investigate the impact of treatment on the prevalence of HCV a population of people who inject drugs.

|  |  |
| --- | --- |
| Variable | Symbols |
| Susceptible individuals |  |
| Exposed individuals (Ab+, RNA-) |  |
| Chronically infected individuals (Ab+, RNA+) |  |
| Diagnosed individuals |  |
| Individuals eNgaged in treatment pathway |  |
| Lost to follow up individuals |  |
| Individuals undergoing Treatment |  |
| Individuals who have attained SVR |  |
| Individuals who have Failed treatment |  |

|  |  |  |
| --- | --- | --- |
| Parameters | Symbols | Units |
| Infection rate |  | per year |
| Relative risk of transmission/acquisition of HCV when on OST |  | None |
| Relative risk of transmission/acquisition of HCV when homeless |  | None |
| Proportion of infections that spontaneously clear |  | None |
| Testing rate  |  | Per year |
| Engagement rate from Diagnosed |  | Per year |
| Engagement rate from Lost to follow up |  | Per year |
| Transition rate from Diagnosed to Lost to follow up |  | Per year |
| Treatment rate from Engaged |  | Per year |
| Length of time on treatment |  | Years  |
| Proportion of treatments that attain SVR |  | None |
| Death rate in injectors |  | Per year |
| Death rate in ex-injectors who aren’t homeless |  | Per year |
| Death rate in ex-injectors who are homeless |  | Per year |
| Inflow of new injectors  |  | People per year |

Notes: The testing rate depends on contact with drug treatment services (OST), we assume that those on OST have an increased rate at which they are tested. The engagement rate from Lost to follow up depends on the current disease progression state. At baseline we assume that for amd for . The treatment rate from engaged also depends on the current disease progression state. For the treatment rate is non-zero, otherwise it is zero.

The force of Infection

Define:

which gathers together all of the infectious individuals in the population within the same OST and homeless status.

Define:

Which gather together all individuals in the population within the same OST and homeless status.

The base force of infection is given by

Define as the multiplier of the force of infection which depends on OST/homeless status where

 This allows the following system of equations for the infection part of the model

When ex-injectors are included in the model , there are no new infections in ex-injectors, but they can be diagnosed and treated as for current injectors.

**Demographics sub-model**

|  |  |
| --- | --- |
| Variable | Symbols Example |
| Susceptible injector, not on OST or homeless |  |
| Susceptible injector, on OST, not homeless |  |
| Susceptible injector, not on OST, homeless |  |
| Susceptible injector, on OST and homeless |  |
| Susceptible ex-injector, not on OST, not homeless |  |
| Susceptible ex-injector, not on OST, homeless |  |

Notes: The letter denotes a susceptible individual. The superscript k is either 0 or 1 denoting injector and ex-injector respectively. The superscript m is from 1,2,..9 denoting the disease progression state (more on this sub-model below). The subscript i is either 0 or 1 and denotes off or on OST respectively. The subscript j is either 0 or 1 which denotes not homeless or homeless respectively.

|  |  |  |
| --- | --- | --- |
| Parameter | Symbol | Units |
| Transition rate from off OST to on OST |  | Per year |
| Transition rate from on OST to off OST |  | Per year |
| Transition rate from not homeless to homeless |  | Per year |
| Transition rate from homeless to not homeless |  | Per year |
| Injecting cessation rate |  | Per year |

The terms for the differential equations for this part of the model are given by the following system , where are the terms concerning movement between OST/homeless and injecting states for variable and are valid for all infection sub-model states (different variable letters) and disease progression states (superscript m)

Disease Progression states

|  |  |
| --- | --- |
| State | Symbol Example |
| Metavir F0 |  |
| Metavir F1 |  |
| Metavir F2 |  |
| Metavir F3 |  |
| Metavir F4 (compensated cirrhosis) |  |
| Decompensated cirrhosis |  |
| Hepatocellular Carcinoma |  |
| Liver Transplant |  |
| Post Liver Transplant |  |

|  |  |
| --- | --- |
| Parameter | Symbol |
| Yearly progression rate from f0 to f1 |  |
| Yearly progression rate from f1 to f2 |  |
| Yearly progression rate from f2 to f3 |  |
| Yearly progression rate from f3 to compensated cirrhosis |  |
| Yearly progression rate from compensated cirrhosis to decompensated cirrhosis |  |
| Yearly progression rate from compensated cirrhosis or decompensated cirrhosis to hepatocellular carcinoma  |  |
| Yearly progression rate from decompensated cirrhosis or HCC to liver transplant |  |
| Yearly progression rate from liver transplant to post liver transplant |  |
| Decompensated cirrhosis related death rate per year |  |
| Hepatocellular carcinoma related death rate per year |  |
| Liver transplant related death rate per year |  |
| Post liver transplant related death rate per year |  |
| Relative risk for progression rate from compensated to decompensated cirrhosis following SVR |  |
| Relative risk for progression rate from compensated cirrhosis to HCC following SVR |  |

These terms in the equations are concerned with movement through the disease states. Infection and treatment are described separately above. denotes the terms in the ordinary differential equation of disease category for susceptible individuals who have previously been treated and for infected individuals. These terms can be found in the equations for all values of and .

As an example as to how this all works together, below are two differential equations for susceptible and chronically infected individuals who are current injectors (, on OST , homeless and in Metavir state F0 .

**Table S1: Disease Progression rates**

|  |  |  |
| --- | --- | --- |
| Parameter | Distribution | Source |
| Yearly progression rate from F0 to F1 | 0.0529-0.2095 sampled from normal distribution | PWID specific instantaneous rates from [1] |
| Yearly progression rate from F1 to F2 | 0.0216-0.1013 sampled from normal distribution |
| Yearly progression rate from F2 to F3 | 0.0450-0.1145 sampled from normal distribution |
| Yearly progression rate from F3 to compensated cirrhosis | 0.0513-0.1838 sampled from normal distribution |
| Yearly progression rate from compensated cirrhosis to decompensated cirrhosis | 0.0166-0.0921 | Instantaneous rates calculated from sampled beta distributions of transition probabilities in [2] |
| Yearly progression rate from compensated cirrhosis or decompensated cirrhosis to hepatocellular carcinoma  | 0.0003-0.0684 |
| Yearly progression rate from decompensated cirrhosis or HCC to liver transplant | 0.0062-0.0962 |
| Yearly progression rate from liver transplant to post liver transplant | 1.0423-2.4412 |
| Decompensated cirrhosis related death rate per year | 0.1063-0.1842 |
| Hepatocellular carcinoma related death rate per year | 0.3904-0.7697 |
| Liver transplant related death rate per year | 0.0911-0.4348 |
| Post liver transplant related death rate per year | 0.0280-0.1016 |
| Relative risk for progression rate from compensated to decompensated cirrhosis following SVR | 0.07 (95%CI 0.03,0.2) | Sampled from transformed lognormal distribution [3] |
| Relative risk for progression rate from compensated cirrhosis to HCC following SVR | 0.23 (95%CI 0.16,0.35) | Sampled from transformed lognormal distribution [4] |

**Table S2:** **Costs and Utility parameter values**

|  |  |  |  |
| --- | --- | --- | --- |
| **Annual Costs** | **Value £** | **Distribution** | **Source** |
| OST (specialist prescribing) | 2,839.28 | Gamma | [5] |
| Uninfected | 0.00 | Constant | [6] |
| F0 and F1 Mild HCV  | 187.59 | Gamma (0.659,289) | [6] |
| F2 and F3 Moderate HCV  | 974.68 | Gamma (0.485,2038) | [6] |
| Compensated Cirrhosis  | 1,546.98 | Gamma (0.211,7452) | [6] |
| Decompensated cirrhosis | 12,397.57 | Gamma (0.901,13974) | [6] |
| Hepatocellular Carcinoma | 11,170.04 | Gamma (0.926,12251) | [6] |
| Liver transplant | 40,273.00 | Gamma (89.75,304.5) | [7] |
| Post-transplant | 2,041.00 | Gamma (15.22,91.1) | [7] |
| Hospital costs year of transplant | 13,937.00 | Gamma (13.78,686.4) | [7] |
| **QALY Weights** |  |  |  |
| *Uninfected* |  |  |  |
| Ex-injector | 0.85 | Uniform (0.8,0.9) | Assumption |
| PWID | 0.73 | Uniform (0.68, 0.78) | [8] |
| Homeless Ex-injector | 0.76 | Uniform (0.7,0.81) | Unpublished data |
| *Mild HCV* (F0 and F1) |  |  |  |
| Without Treatment  | 0.77 | Beta (521.2375,155.6943) | [7] |
| SVR  | 0.82 | Beta (65.8678,14.4588) | [7] |
| *Moderate HCV (F2 and F3)* |  |  | [7] |
| Without Treatment | 0.66 | Beta (168.2461, 86.6723) | [7] |
| SVR | 0.72 | Beta (58.0608,22.592) | [7] |
| *Compensated Cirrhosis*  |  |  |  |
| Without Treatment | 0.55 | Beta (47.1021, 38.5381) | [7] |
| SVR | 0.61 | Beta (58.0608,37.1124) | [7] |
| Decompensated cirrhosis | 0.45 | Beta (123.75, 151.25) | [7] |
| Hepatocellular Carcinoma | 0.45 | Beta (123.75, 151.25) | [7] |
| Liver transplant | 0.45 | Beta (123.75, 151.25) | [7] |
| Post-transplant | 0.67 | Beta (59.2548, 29.1852) | [7] |

Intervention Inputs for the model: Additional Information

When the treatment start date was not available, the mean time from screening to commencing treatment (206 Days) was used to estimate when treatment started. All individuals were assumed to be at least Metavir F1 as there is no defined cut off fibrosis score for F0.

**Table S3: Breakdown of costs and steps relating to the model inputs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Base Case: Cost per activity** | **Total Economic Cost (£) 2017/18** | **% of Total Cost** | **Step in the model** |
| **Initial Contact in Outreach Location** | 16202.85 | 12.64% | Chron-Diagnosed |
| **Initial Contact in Outreach Van** | 24454.91 | 19.09% | Chron-Diagnosed |
| **POCT (includes staff time)** | 6942.41 | 5.42% | Chron-Diagnosed |
| **DBS Test (includes staff time)** | 8533.07 | 6.66% | Chron-Diagnosed |
| **Fibroscan (includes staff time)** | 15142.15 | 11.82% | Diag-Engaged |
| **Active Follow up on HCV+** | 7908.27 | 6.17% | Diag-Engaged |
| **Follow up on HCV-** | 4999.31 | 3.90% | Chron-Diagnosed |
| **SCREENING TOTAL** | 84182.97 |   |   |
| **Treatment** |  |  |  |
| **Peer support: Evaluation of a new patient** | 13288.37 | 10.37% | Diag-Engaged |
| **Peer support: Treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks** | 14111.91 | 11.01% | Eng-Treatment |
| **Adherence Support** | 8289.22 | 6.47% | Eng-Treatment |
| **Peer support: Post treatment visits 12 weeks and 1 year** | 8264.22 | 6.45% | Treatment |
| **TREATMENT TOTAL** | 43953.73 |   |   |
| **TOTAL**  | 128136.70 |   |  |

Figure S3: Results of the ANCOVA sensitivity analysis



**Table S4 Itemised costing of HCV treatment in hospital**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | Lab | Time in minutes | Cost per hour | Cost |
| **Evaluation of a new patient with confirmed HCV** |  |  |  |
| Staff |   |   |   |   |
| Specialist Nurse |  | 0 |  £ 15.72  |  £ -  |
| Consultant |  | 10 |  £ 47.22  |  £ 7.87  |
| Phlebotomist |  | 10 |  £ 9.40  |  £ 1.57  |
|   |  |  |  |   |
| Tests and investigations |  |  |  |   |
| Full blood count | Haematology |  |  |  £ 3.00  |
| Liver function tests | Chemical Pathology |  |  |  £ 3.00  |
| HCV viral load | Virology |  |  |  £ 64.20  |
| HCV genotype | Virology |  |  |  £ 64.20  |
| Fibroscan | Imaging |  |  |  £ 131.00  |
| Ultrasound | Radiology |  |  |  £ 51.00  |
|   |  |  |  |   |
| Total |   |   |   |  £ 325.84  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Treatment initiation and subsequent visits 0,2,4,8,12 weeks** |  |  |
| Staff |   |   |   |   |
| Specialist Nurse |  | 20 |  £ 15.72  |  £ 5.24  |
| Phlebotomist |  | 10 |  £ 9.40  |  £ 1.57  |
|   |  |  |  |   |
| Tests and investigations |  |  |  |   |
| Full blood count | Haematology |  |  |  £ 3.00  |
| Liver function tests | Chemical Pathology |  |  |  £ 3.00  |
| HCV viral load | Virology |  |  |  £ 64.20  |
|   |  |  |  |   |
| Total for each treatment visit |   |   |   |  £ 77.01  |
|  |  |  |  |  |
|  |  |  |  |  |
| **Post treatment visits 12 weeks and 1 year** |  |  |  |
| Staff |   |   |   |   |
| Specialist nurse |  | 20 |  £ 15.72  |  £ 5.24  |
| Phlebotomist |  | 10 |  £ 9.40  |  £ 1.57  |
|   |  |  |  |   |
| Tests and investigations |  |  |  |   |
| Full blood count | Haematology |  |  |  £ 3.00  |
| Liver function tests | Chemical Pathology |  |  |  £ 3.00  |
| HCV viral load | Virology |  |  |  £ 64.20  |
|   |  |  |  |   |
| Total for SVR visits |   |   |   |  £ 77.01  |

Protocol obtained by personal communication G Foster, HCV clinical lead in England

Table S5: **Scenario 1: Start-up costs annualised over 3 years**

| **Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 134,965.45 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 16,546.82 | Total Cost of Diagnosis(1 year)62,324.36 | UCH and Groundswell financial records |
| In mobile health unit | 24,798.87 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 5343.27 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 7022.37 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8613.03 |
| Fibroscan | 19,059.29 | Total Cost of Engagement (1 year)40,943.85 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 8,252.23 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,632.33 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 14,455.87 | Total Cost of Treatment (1 year) 31,697.24 + hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,633.18 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,608.18 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

Table S6: **Scenario 2: Start-up costs annualised over 7 years**

| **Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 125,210.09 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 16,086.30 | Total Cost of Diagnosis(1 year)60549.78 | UCH and Groundswell financial records |
| In mobile health unit | 24,338.36 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 4,882.75 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 6,825.85 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8,416.51 |
| Fibroscan | 13,381.09 | Total Cost of Engagement (1 year)34344.62 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 8,252.23 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,171.82 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 13,995.35 | Total Cost of Treatment (1 year) 30,315.69+ hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,172.67 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,147.67 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

Table S7: **Scenario 3: Cost of overheads doubled.**

| **Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 128,976.70 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 16,339.15 | Total Cost of Diagnosis(1 year)61,511.89 | UCH and Groundswell financial records |
| In mobile health unit | 24,575.65 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 5,037.06 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 6,984.69 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8,575.35 |
| Fibroscan | 15,196.24 | Total Cost of Engagement (1 year)36,563.07 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 7968.24 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,398.59 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 14,222.78 | Total Cost of Treatment (1 year) 30,901.73 + hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,351.98 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,326.98 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

**Table S8: Scenario 4: Cost of overheads tripled**

| **Scenario 4: Cost of overheads tripled.****Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 129,816.70 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 16,475.45 | Total Cost of Diagnosis(1 year)61,891.23 | UCH and Groundswell financial records |
| In mobile health unit | 24,696.38 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 5,074.82 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 7026.96 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8617.62 |
| Fibroscan | 15,250.34 | Total Cost of Engagement (1 year)36,787.35 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 8028.22 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,508.80 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 14,333.65 | Total Cost of Treatment (1 year) 31,138.11 + hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,414.73 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,389.73 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

Table S9: **Scenario 5: Mobile Health Unit is used for each screening event.**

| **Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 130,347.41 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 00.00 | Total Cost of Diagnosis(1 year)60,661.42 | UCH and Groundswell financial records |
| In mobile health unit | 38,839.71 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 5456.28 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 7387.38 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8978.04 |
| Fibroscan | 15,587.12 | Total Cost of Engagement (1 year)37,685.71 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 8365.24 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,733.35 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 14,556.88 | Total Cost of Treatment (1 year) 32,000.28 + hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,734.20 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,709.20 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

Table S10: **Scenario 6: HCV van is used for each screening event.**

| **Activity Cost for 1 year 2017/2018** | **Costs (£) 2017/18** | **Model Input** | **Source** |
| --- | --- | --- | --- |
| Total Cost  | 128,752.55 |  | UCH and Groundswell financial records |
| Total cost of Outreach  | In outreach location | 00.00 | Total Cost of Diagnosis(1 year)59,066.56 | UCH and Groundswell financial records |
| In mobile health unit | 37,244.85 | UCH and Groundswell financial records |
| Informing HCV- patients of their status | 5456.28 |
| Total Cost of Tests (includes admin &management, staff time, medical supplies and test costs) | POCT (98 for the year) | 7387.38 | UCH and Groundswell financial records |
| RNA(62 for the year) | 8978.04 |
| Fibroscan | 15,587.12 | Total Cost of Engagement (1 year)37,685.71 + hospital costs |  |
| Engagement initiation of RNA+ patients (follow up of RNA+ tests) | 8365.24 | UCH and Groundswell financial records |
| Peer support of evaluation visit in hospital  | Peer support costs | 13,733.35 | UCH and Groundswell financial records |
| Hospital costs | 200.30 per person | Expert opinion (correspondence Graham Foster) |
| Peer support of treatment initiation and subsequent visits 0,2,4,6,8, 10 weeks | Peer support costs | 14,556.88 | Total Cost of Treatment (1 year) 32,000.28 + hospital costs +DAA’s | UCH and Groundswell financial records |
| Drugs and hospital costs | 395.78 per person for 12 weeks hospital costs38,982 DAA’s per person | Expert opinion (correspondence Graham Foster) |
| Adherence Support |  | 8,734.20 | UCH and Groundswell financial records |
| Peer support of post treatment visits 12 weeks and 1 year | Peer support costs | 8,709.20 | UCH and Groundswell financial records |
| Hospital costs | 158.33 per person |

**Table S11: Intervention Related Assumptions Scenario Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| Scenario | Incremental Costs | Incremental QALYs | ICER |
| Base Case | £3,872,848 | 412 | £9,408 per QALY |
| All intervention patients considered current PWID | £3,831,023 | 459 | £8,348 per QALY |
| All intervention patients considered recently diagnosed | £3,781,110 | 402 | £9,405 per QALY |
| Overhead costs doubled | £3,874,381 | 412 | £9,411 per QALY |
| Overhead costs tripled | £3,875,926 | 412 | £9,415 per QALY |
| Start up costs annualised over 3 years | £3,885,609 | 412 | £9,439 per QALY |
| Start up costs annualised over 7 years | £3,868,231 | 412 | £9,397 per QALY |
| Find and Treat van used for all sessions | £3,876,645 | 412 | £9,417 per QALY |
| Hep C Van used for all sessions | £3,873,585 | 412 | £9,410 per QALY |

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