

Hepatitis C infection and treatment outcomes in the direct-acting antiviral era

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Background

- Hepatitis C virus (HCV) infection remains a significant public health concern in the United Kingdom.
- Despite an estimated 30% decrease in prevalence since 2015, there were approximately 89,000 living with chronic HCV infection in England¹.
- With improved access to direct-acting antiviral (DAA) therapy from 2016, HCV elimination should be achievable.
- We provide a dedicated HIV/HCV clinic with specialists from genitourinary medicine, infectious diseases and gastroenterology.

Methods

- A retrospective case note review of patients diagnosed with HCV infection in a sexual health service from 2016 to 2019 was performed.
- Data included demographics, HIV status, acute or chronic infection, genotype, treatment regimen and outcomes.

Results

- 136 patients were included compiling 137 episodes of infection. 22 of these were diagnosed prior to 2016 and received treatment during the look back period.

Table 1. Baseline characteristics

Baseline Characteristics	
Male	112 (82.4%)
Female	24 (17.6%)
Homosexual	83 (61.0%)
Heterosexual	51 (37.5%)
Bisexual	2 (1.5%)
Median age (range)	39.5 (20 - 69)
Route of Transmission	
MSM	44 (32.1%)
IDU and MSM	41 (30.1%)
IDU (heterosexual)	33 (24.1%)
Blood products/ procedure	2 (1.2%)
Unknown	16 (11.8%)
Genotype 1a most common	46 (33.8%)
Acute infection	61 (44.9%)
Chronic Infection	76 (55.5%)
Re-infection	17 (9 34%)
HIV	
Co-infection	88 (64.7%)
Median CD4 at HCV diagnosis	601.5 (20 - 1315)
Median HV VL at HCV diagnosis	38300 (<50 - 2410000)
Median CD4 at HCV treatment	681 (81-1315)
Median HIV VL at HCV treatment	106 (<50 - 67500)

References

- Public Health England, 2018. Hepatitis C in England, 2020

Results (continued)

Graph 1. Breakdown of diagnosis by year

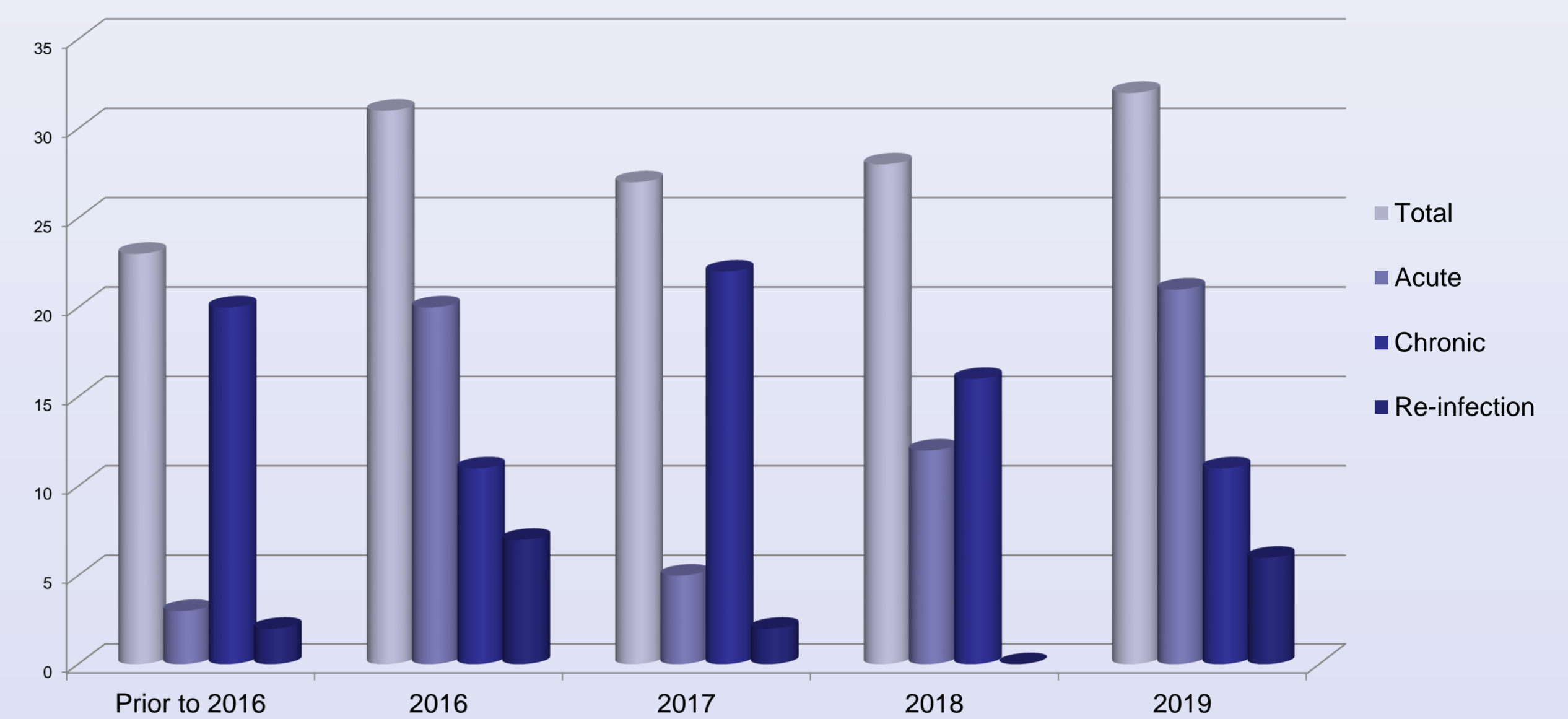


Table 2. Summary of treatment outcomes

Outcomes: Untreated		Outcomes: Treated	
Total	60	Total	75
Declined treatment	2	SVR	68
Self clearance	25	Non SVR (re-infection)	2
DNA apt.	15	Awaits SVR	1
Moved services	17	DNA SVR blood apt.	3
Awaiting treatment	1	Still on treatment	1

Table 3. Number treated by year

Number treated each year				
2016	2017	2018	2019	2020
10	15	19	30	1

Table 4. Summary of treatment used

Treatment	Number
PegIFN + RBV (early 2016)	1
Epclusa (±RBV)	18
Harvoni (±RBV)	20
Maviret	4
Viekirax, Exviera (+ RBV)	10
Viekirax (+ RBV)	3
Vosevi	1
Zepatier (±RBV)	18

HCV re-infections

- 17 re-infections in total with the highest rates among MSM 13 (76.5%) and 10 (58.8%) MSM also reporting intravenous drug use.

Conclusions

- Our study indicates that HCV treatment is effective with 91% of those treated achieving SVR, irrespective of HIV co-infection.
- Of the patients that self cleared 56% were co-infected with HIV.
- The lack of engagement is a common finding which not only results in poorer health outcomes but facilitates onward transmission.
- There is a steady increase in the number of acute infections.
- Increase screening of at-risk populations, improving re-engagement and treatment for acute infection are useful strategies to reduce the pool of infection and therefore elimination of HCV infection.