HCV Diagnosis and Treatment, Impact on Engagement and Behaviour of People Who Inject Drugs, a service evaluation, the Hooked C Project*

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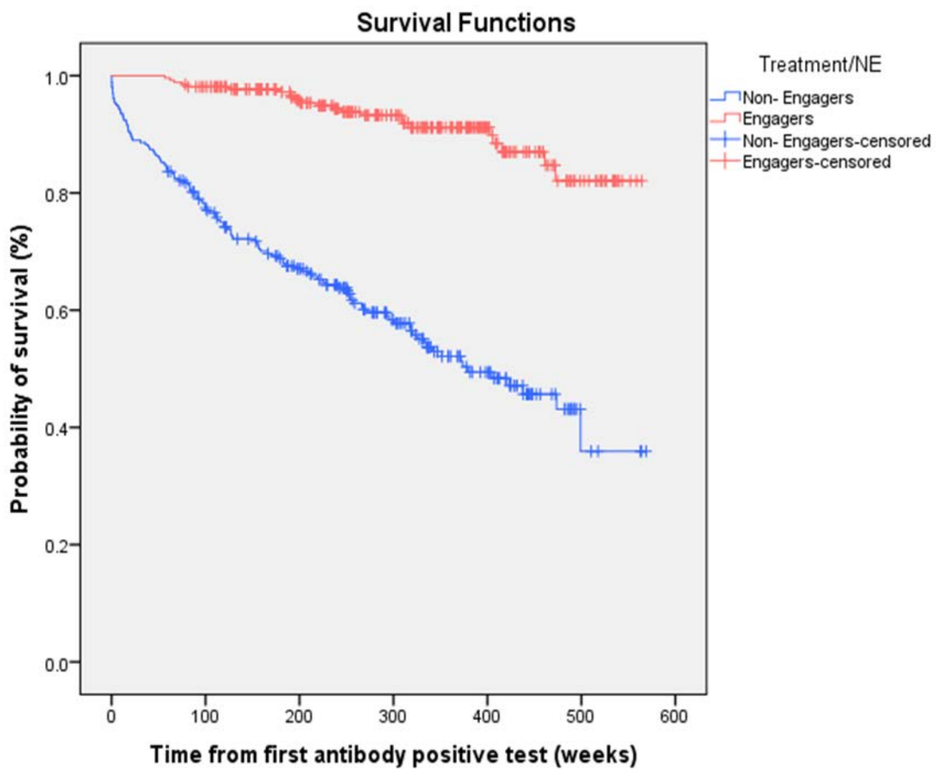
Background

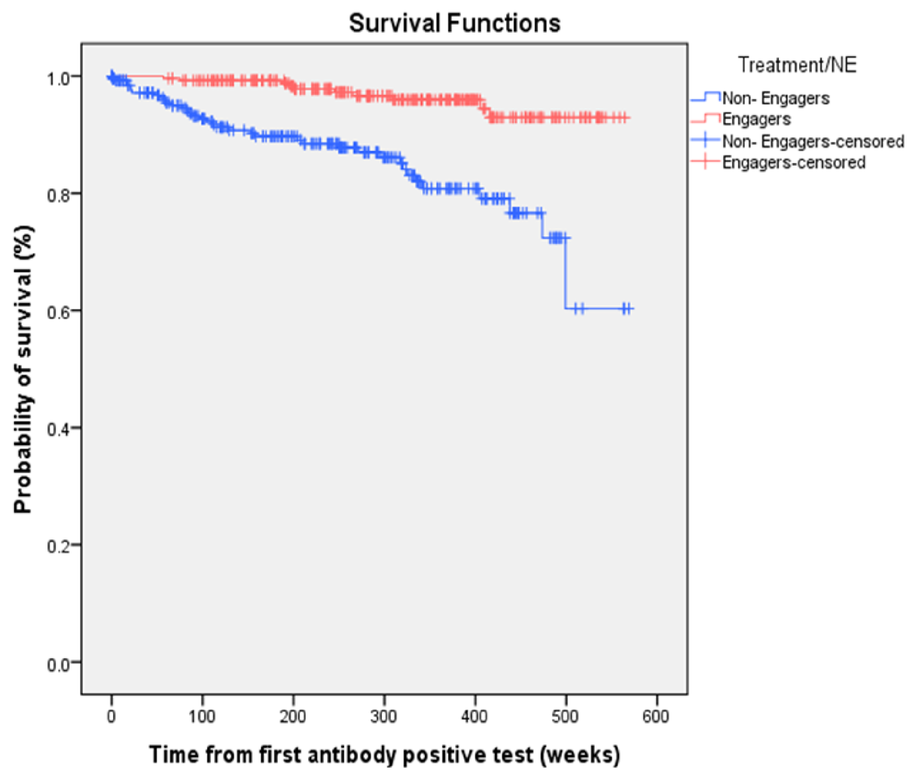
- There is emerging evidence that HCV care engagement is associated with change in drug use behaviours, including reduction in injecting drug use and injection equipment sharing, among PWID.
- The introduction of Multidisciplinary Managed Care Networks (MCN) in HCV treatment for PWID has increased access to services and reduced all-cause mortality.
- The associated increased speed of access into care and focus on HCV treatment for this population may have led to a greater degree of engagement with health services and may have had a stabilizing effect on drug- using behavior, decreasing their risk of mortality.

Aims and objectives

- Does HCV diagnosis and engagement in treatment services reduce a) all-cause mortality and b) drug related death?
- Does any change observed in these outcomes depend on if the treatment is interferon based or DAA based, and intensity of engagement with staff?



Kaplan Meier survival curve for time from first antibody positive to all-cause mortality comparing treatment engaging cases and treatment non-engaging controls



Kaplan Meier survival curve for time from first antibody positive to drug related death comparing treatment engaging cases and treatment non-engaging controls

Methodology

Selected cohort:

- Risk factor= intravenous drug use
- Postcode within Tayside
- Not co-infected with other BBVs
- Tested/initiated treatment between January 2008 and November 2017

Retrospective case control studies (1:1 matching by age and sex):

- PWID with active HCV infection (PCR Positive) vs PWID who were infected but cured spontaneously (PCR Negative)
- PCR Positive patients who engaged vs did not engage with treatment services
- Interferon treated patients vs DAA treated patients

Results

- No differences in risk of all-cause mortality (aOR 1.18, 95% CI 0.80- 1.73, p = .40) or drug related death (aOR 1.19, 95% CI 0.71- 2.00, p = .51) between PCR Negative controls and PCR Positive cases was detected.
- The **odds of all-cause mortality was 12.2 times higher in non-engaging persons** compared to treatment engaging cases (aOR 12.15, 95% CI 7.03- 20.99, p < 0.001).
- The **odds of a drug related death was 5.5 times higher in non-engaging persons** compared to treatment engaging cases (aOR 5.52, 95% CI 2.67- 11.44, p < 0.001).
- No differences in risk of all-cause mortality (aOR 1.45, 95% CI 0.70- 2.98, p = .37) or drug related death (aOR 2.06, 95% CI 0.80- 5.23, p = .13) between interferon treated cases and DAA treated controls was detected.

Conclusions

- HCV treatment engagement is significantly protective against all-cause mortality and drug related death.
- This engagement effect is independent of treatment regimen, with the introduction of DAA therapies not increasing the risk of drug related death, suggesting intensity of engagement with staff is not an important factor.
- Further evidence of the importance of HCV diagnosis and treatment engagement amongst PWID, reducing their risk of mortality, beyond liver related outcomes.

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References

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