OBJECTIVE
To evaluate treatment-induced depression as a complication of HCV-therapy in both IFN-based and DAA-only regimens.

METHODS
- Beck’s Depression Inventory (BDI) scores were used to score the severity of depression.
- BDI scores were retrospectively analyzed from three phase II-III clinical trials in HIV/HCV coinfected patients.
  - 26 patients treated with 48 weeks IFN-based regimens
  - 50 patients treated with 12 weeks of ledipasvir/sofosbuvir combination (DAA)
- BDI scores were collected at pre-treatment day 0, during treatment and 1-8 weeks post-treatment.
- GraphPad Prism 6.0 was used for all statistical analysis.

RESULTS
- There were similar baseline BDI scores between patients on IFN-based (6.96) and DAA-only (5.38) treatment (p=0.34).
- Mean on-treatment scores varied significantly between IFN-treated patients (9.35) and DAA-treated patients (3.18), p=0.0011.
- While post-treatment BDI scores returned to baseline for those on IFN-therapy, DAA-treated patients demonstrated a significant decline in post-treatment BDI-scores compared to baseline.
- In evaluating change in BDI-score during treatment: IFN-based scores increased by average 2.4 points, while DAA-only scores decreased by an average of 2.2 (FIGURE 1), demonstrating a significant difference, p=0.001.

CONCLUSION
- Contrary to IFN-based treatment, DAA-only treatment is not complicated by depression, and may be the optimal choice for patients with baseline psychiatric comorbidities.
- The reason for continued decline in post-treatment BDI-scores in DAA-treated patients is not clearly understood.
- Further analysis is underway to determine potential mechanisms including HCV clearance or medication effect on viral neurotropism.