Acute HCV
Treatment considerations

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Case #2

- 46 year old man, HIV+ well controlled on ART
- Presents with mild fatigue and nausea x several weeks
- Labs:
  - AST/ALT baseline 21/18 -> 450/414
  - Total bilirubin 1.2, Albumin 3.9
  - INR 0.9
- Notes some mild fatigue and several episodes of diarrhea
- Meth use: smoked and IDU, occasional shared needle/works
- MSM
  - No condom use when with HIV+ partners

HCV Ab negative, HCV RNA 4 million IU/ml

Case #2

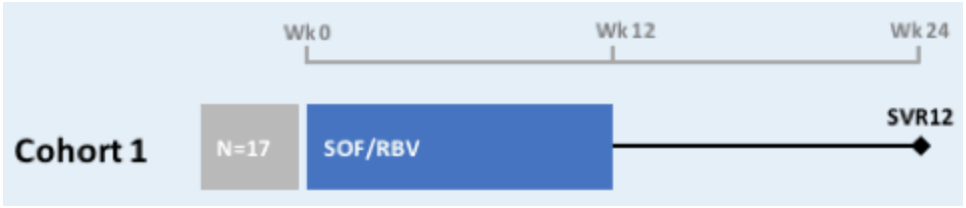
- 3 months after initial diagnosis:
  - Symptoms have resolved
  - Transaminases decreased to 42/50
  - HCV RNA remains detectable 3 months : 10 million IU/ML
  - GT 1a
- He is eager to be treated and cured of his HCV & wants to know what his option are

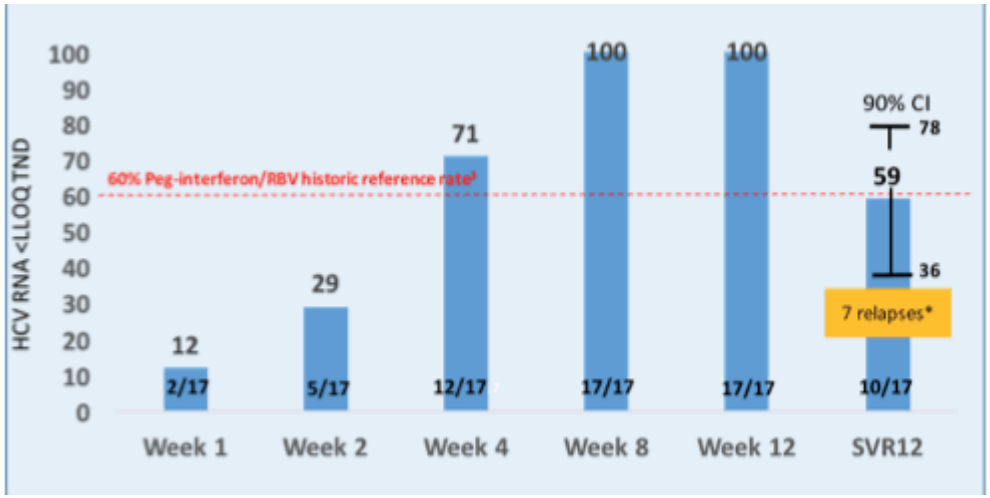
DAAs in Acute HCV

- In interferon era, treatment during first 6-12 months of infection led to higher SVR rate with shorter course of therapy
- Can treatment of acute HCV also be shortened when giving interferon DAA based treatment?

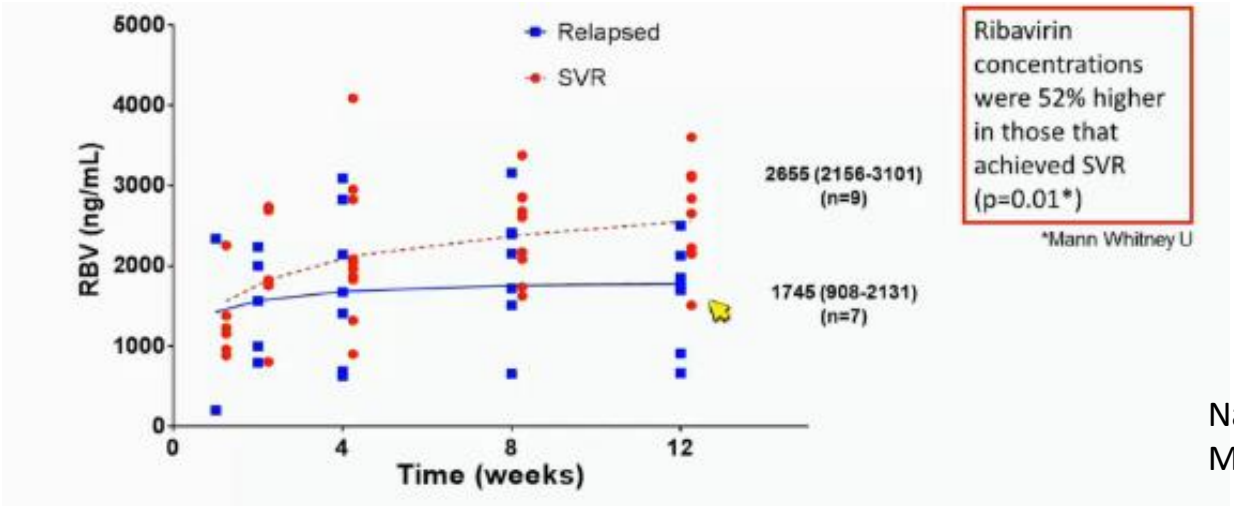
SWIFT-C (ACTG): SOF+ RBV

HIV/HCV coinfected, GT 1





59% SVR



Naggie AASLD 2015
MacBrayne CROI 2016

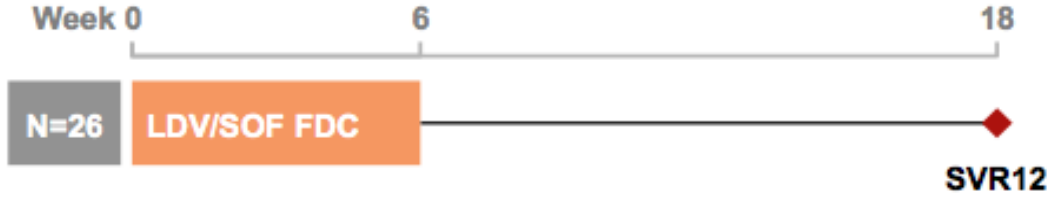
NY case series: SOF+ RBV

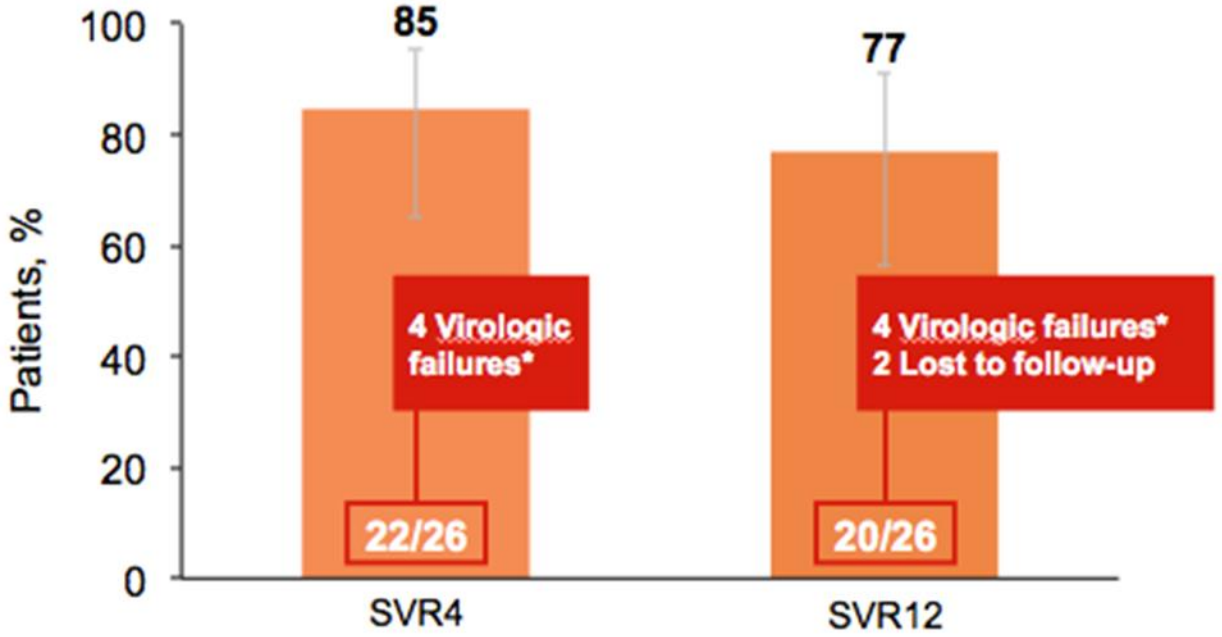
- Single center case series, n=12, HIV/HCV+ GT1
- Also treated with 12 weeks of SOF + weight-based ribavirin
- 11/12 with SVR12 (92%)
  - 1 failure with baseline RNA of 6.12 log
- Not clear why marked differences between two studies
- SOF+RBV not as robust as SOF+NS5a or SOF+PI for HCV GT1- not a first-line option

Fierer et al AASLD 2015

SOF/Ledipasvir x 6 weeks

- HIV/HCV, GT1





3 virologic failures

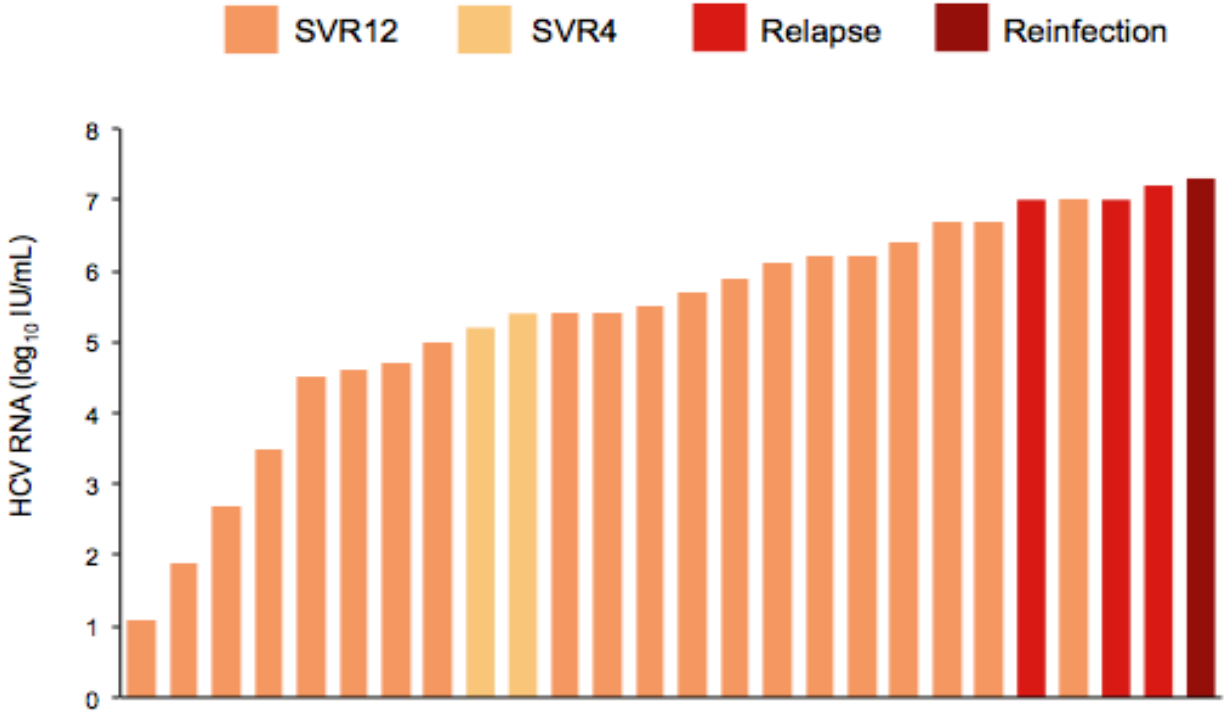
SVR 87% (20/23) excluding 2 LTFU and 1 relapse

*3 patients relapsed, 1 was reinfected (GT 1a at baseline, 4d in post-treatment).
Error bars represent 95% confidence intervals.

Rockstroh CROI 2016

Predictors of Virologic failure

- 2 of 3 failures with NS5a resistance at baseline
  - Positions 28 and 31, no Y93 substituions.
- High baseline RNA associated with failure
  - > 9 million IU/ml, all failed



Rockstroh
CROI 2016

SLAM-C: HCV Monoinfection

- n= , GT1a or b, 6 NYC drug rehab programs
- 8 weeks SOF/simeprevir or 4 weeks SOF/LDV
  - 2 in SOF/LDV group with NS5a RAVs

Undetectable	Group A SOF + LDV N=14	Group B SOF + SIM N=15
Day 7, n, %	13/14, 92.9%	13/15, 86.67%
4 weeks, n, %	14/14, 100% (ETVR)	14/15, 93.3% (1 dropped, started iv drug use)
8 weeks, n, %	14/14, 100%	14/15, 93.3% (ETVR)
16 weeks, n, %	**14/14, 100%, SVR12**	**14/15, 93.3%**
20 weeks, n, % (per protocol)	13/13, 100% (1 dropped, transferred to the prison)	13/13, 100%, SVR12 (one was lost to follow-up- homeless)
Retention	13/14, 92.9%	13/15, 86.67%

Basu et al APASL 2016

Back to our case

- You and your patient decide to pursue HCV treatment
- Given HCV 12 million IU/ml and limited and evolving data for shortened DAA therapy in acute HCV, you treat with 12 weeks of LDV/SOF
- He tolerates well and attains SVR12, despite ongoing drug use and chaotic living situation
- You counsel about risks of reinfection from both IDU & sexual contact, and test HCV RNA q 6 months

Acute HCV treatment: Conclusions

- Shortened course of therapy feasible in some acute HCV populations
- High baseline viral load may drive relapse
- Role of RAVs not well defined
- Conservative approach: stick with standard course of therapy in acute HCV patients until better data
- Avoid shortened courses with higher HCV RNA or other unfavorable factors