Something New During PrEP

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Case

- 48 yo MSM living in NYC, single
- Had increasing number of episodes of unprotected receptive anal intercourse, became concerned about acquiring HIV
- Discussed PrEP (TDF/FTC) with his doc

Case

- Baseline labs:
  - Normal Cr, normal LFTs
  - HBV sAb+; cAb-; sAg-
  - HCV Ab-
  - RPR NR
  - HIV ELISA negative

Case

- PrEP (TDF/FTC daily) prescribed in fall of '12
- But, his doc stopped taking his insurance in Apr'13
  - ongoing PrEP
  - no f/u labs

Case

- New doc visit 5 mo later (late Sep'13)
- Missed no doses PrEP
- No specific signs or symptoms of HIV infection or other STI

Case

- Bottom-vers, never condoms
- >40 partners in last 3 mo
- No groups, no fists, no toys
- Using BBRT, Adam4adam, scruff, jack'd, etc
- Smoking CM for sex; no slamming, no booty bump

Case

- New doc's labs:
  - ALT 732
  - RPR 1:32
  - urethral and rectal *Chlamydia* (NAAT)
  - HAV Ab-; HCV Ab-; (HBV sAb+)
  - HIV ELISA negative

Case

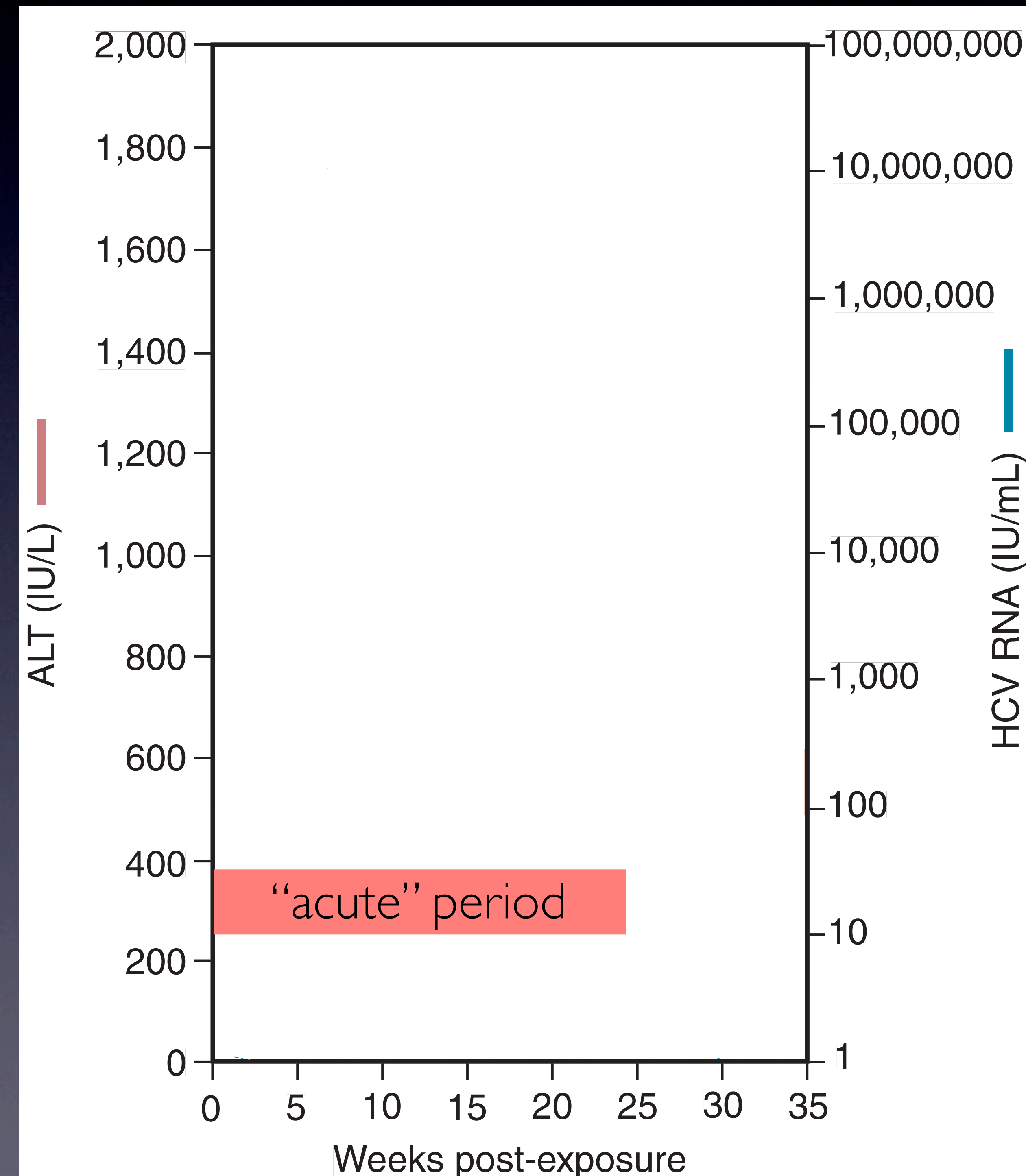
- Treated with PCN for syphilitic hepatitis (secondary syphilis)
    - also treated for *C.t.*
- Felt better
- Return in 6 weeks

Case

- Follow-up labs:
  - ALT 1,377
  - HCV Ab positive
  - HCV VL 14,995 IU/mL
  - Geno 1a

Early Course of HCV Infection

- Viremia detectable within 7 to 10 days
- ALT elevation 2 to 8 wk
- Ab seroconversion ~6 to 8 wk (3rd gen)
- HCV VL fluctuates widely (> 1 log), even to ND
  - Presumably due to adaptive immune escape/recapture



Sulkowski JAMA 2002

"Acute" HCV Infection

- "Acute" commonly described as first 6 mo of infection
  - 6 mo period tells us little about the biology of new HCV infection, however
- "Acute" does not denote severity, simply chronicity
  - In fact, ~80% of patients *asymptomatic* during "acute" HCV

Functional Definition "Acute" HCV Infection

- Period during which:
  - "Spontaneous" (immune-based) clearance is much more common
  - Interferon-based (and probably DAA) treatment is significantly more effective
- This period can be months shorter or months longer than 6 months

Criteria for "Acute" HCV Infection

- No single test or set of tests are diagnostic
- Broad criteria include:
  - New elevation in ALT (> 3-10 x ULN), with
  - Seroconversion (antibody and/or HCV VL),
  - In the setting of clinical suspicion.
  - Wide/rapidly fluctuating HCV VL common

Spontaneous Clearance

- HIV-infected MSM:
  - Rarely clear (15% across all treatment studies):
    - Older age (mid-40's)
    - Sex (men)
    - HIV?

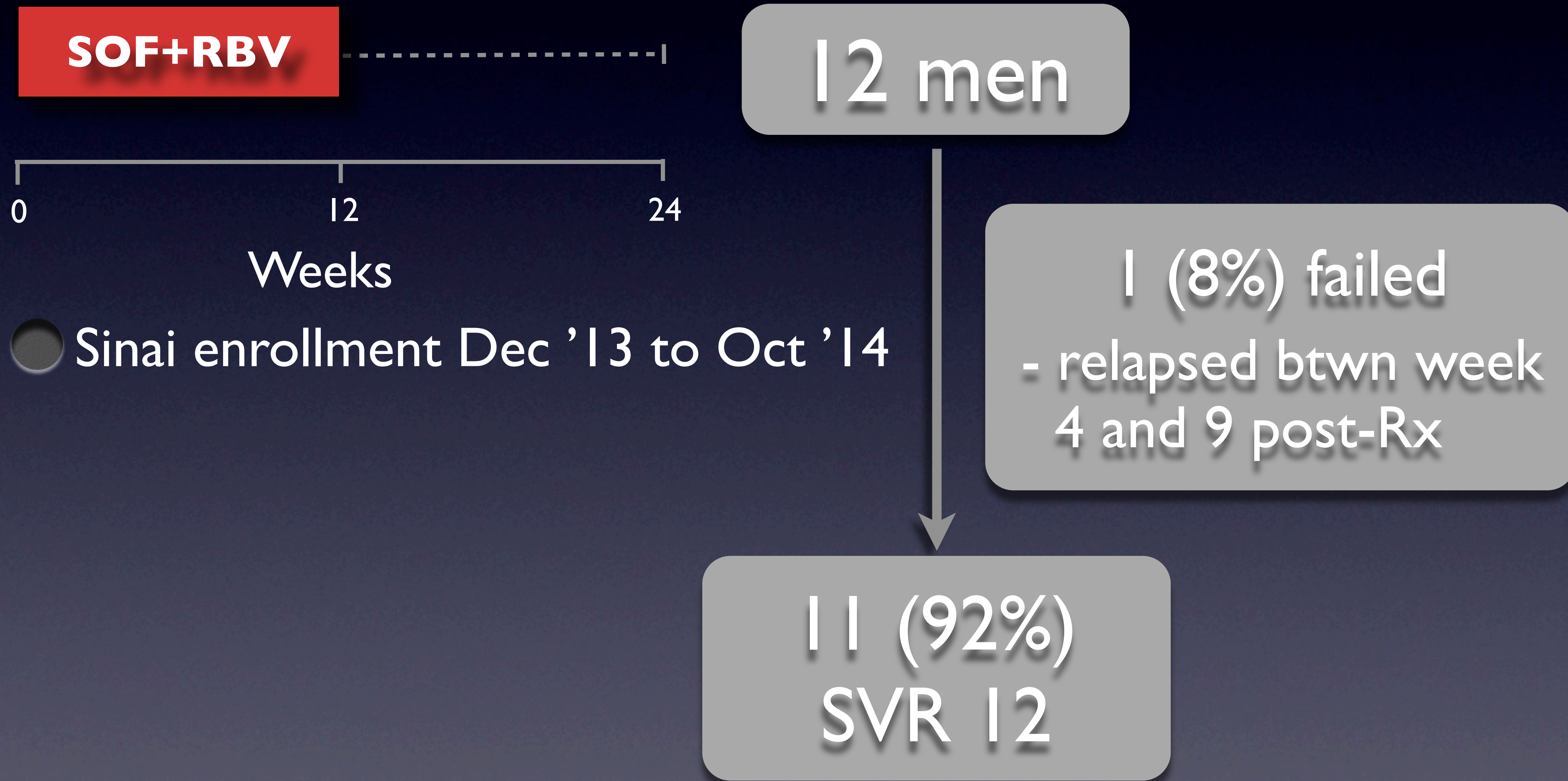
Spontaneous Clearance

- HIV-uninfected MSM:
  - Clearance less-well worked out but likely to still be low:
    - Older age (mid-40's)
    - Sex (men)

When to Treat, with What, How Long?

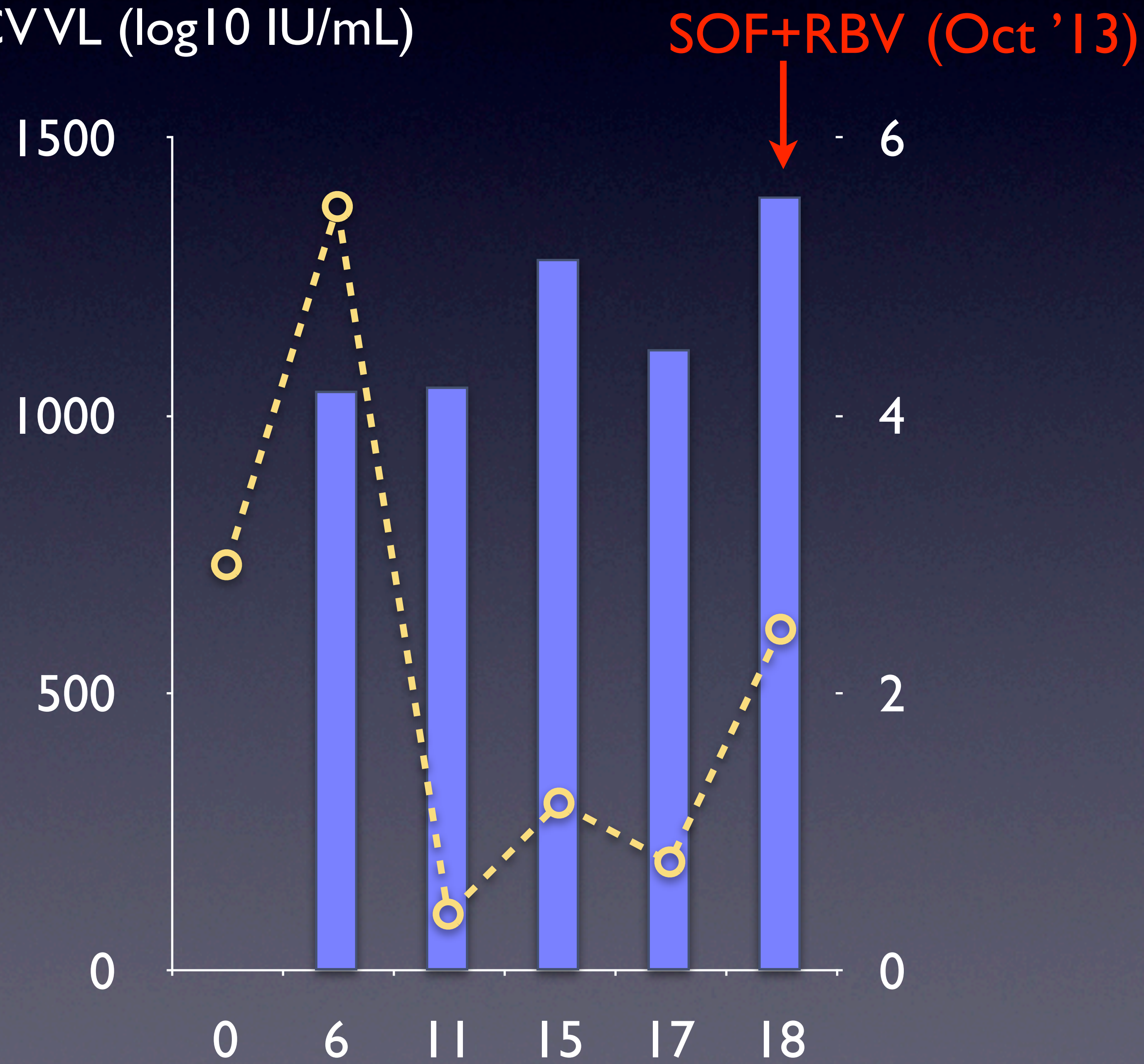
- European (NEAT) guidelines (HIV+): repeat VL at 4 wk
  - If not decreased by > 2 $\log_{10}$IU/mL, treat immediately
  - If decreased by > 2 $\log_{10}$IU/mL, monitor through 12 wk, then if HCV VL still detectable, treat immediately
- AASLD/IDSA guidelines: monitor for 12 to 16 wk before treating

SOF+RBV for Acute HCV in HIV+ MSM

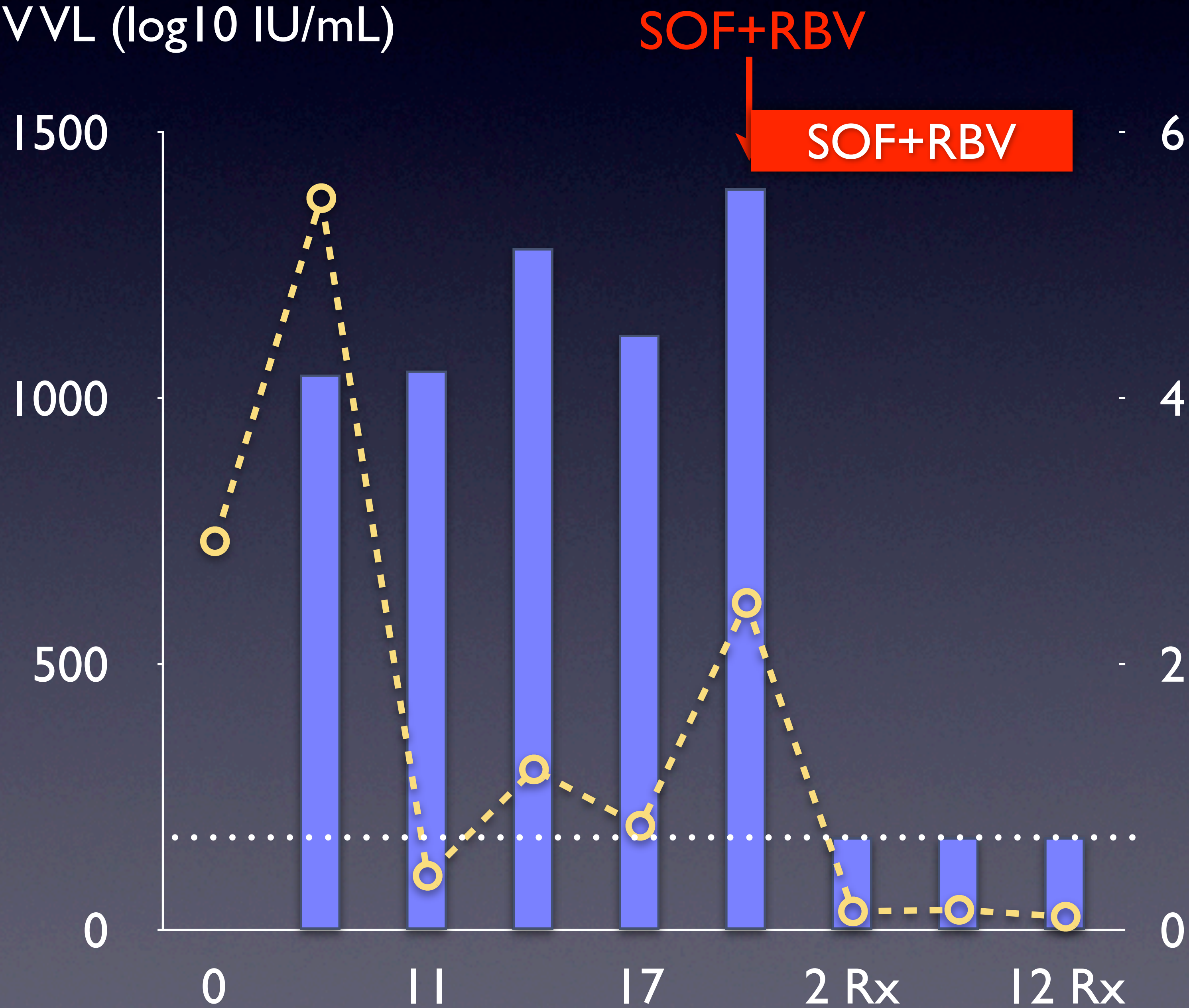


Fierer AASLD '15

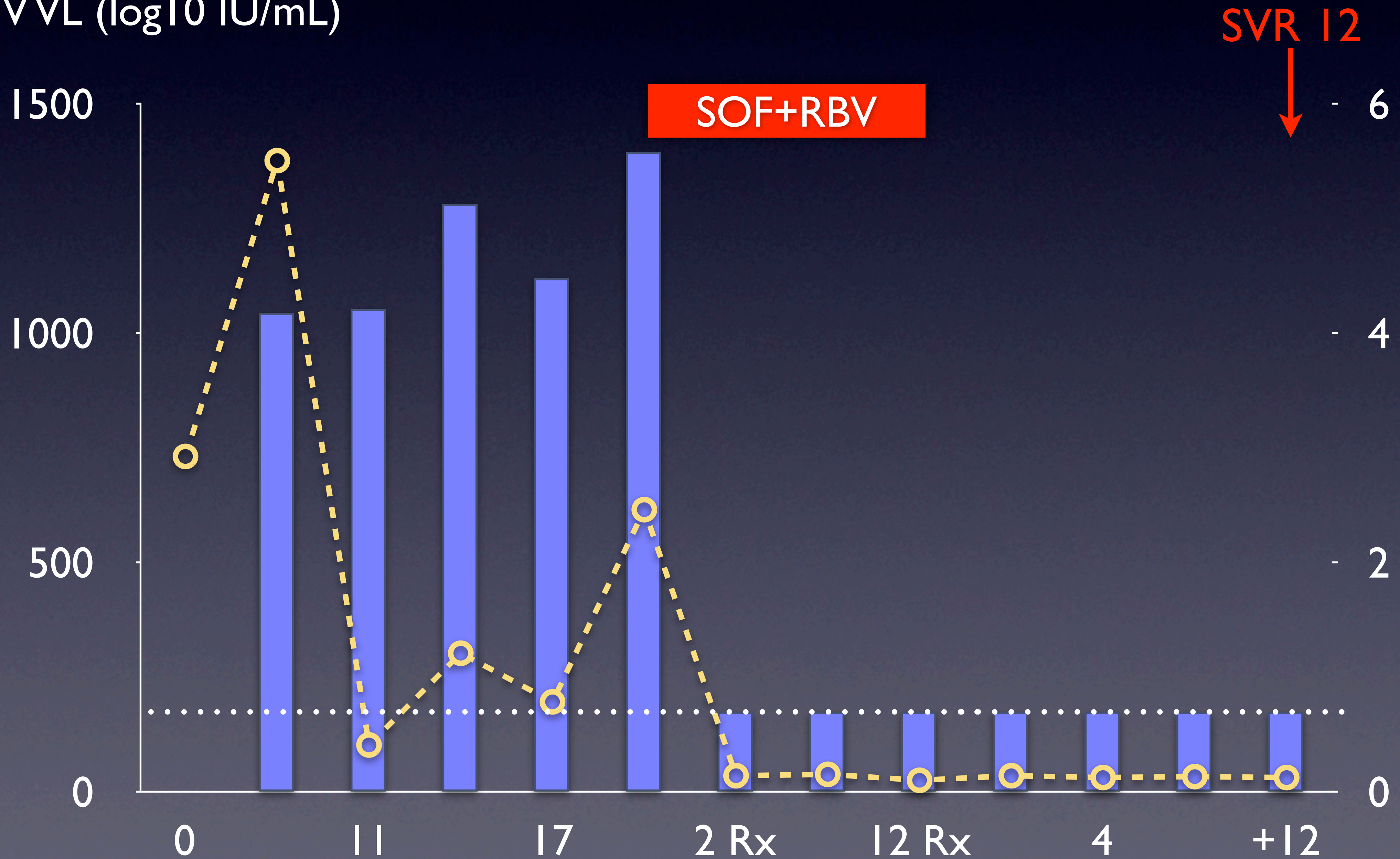
Course



Course

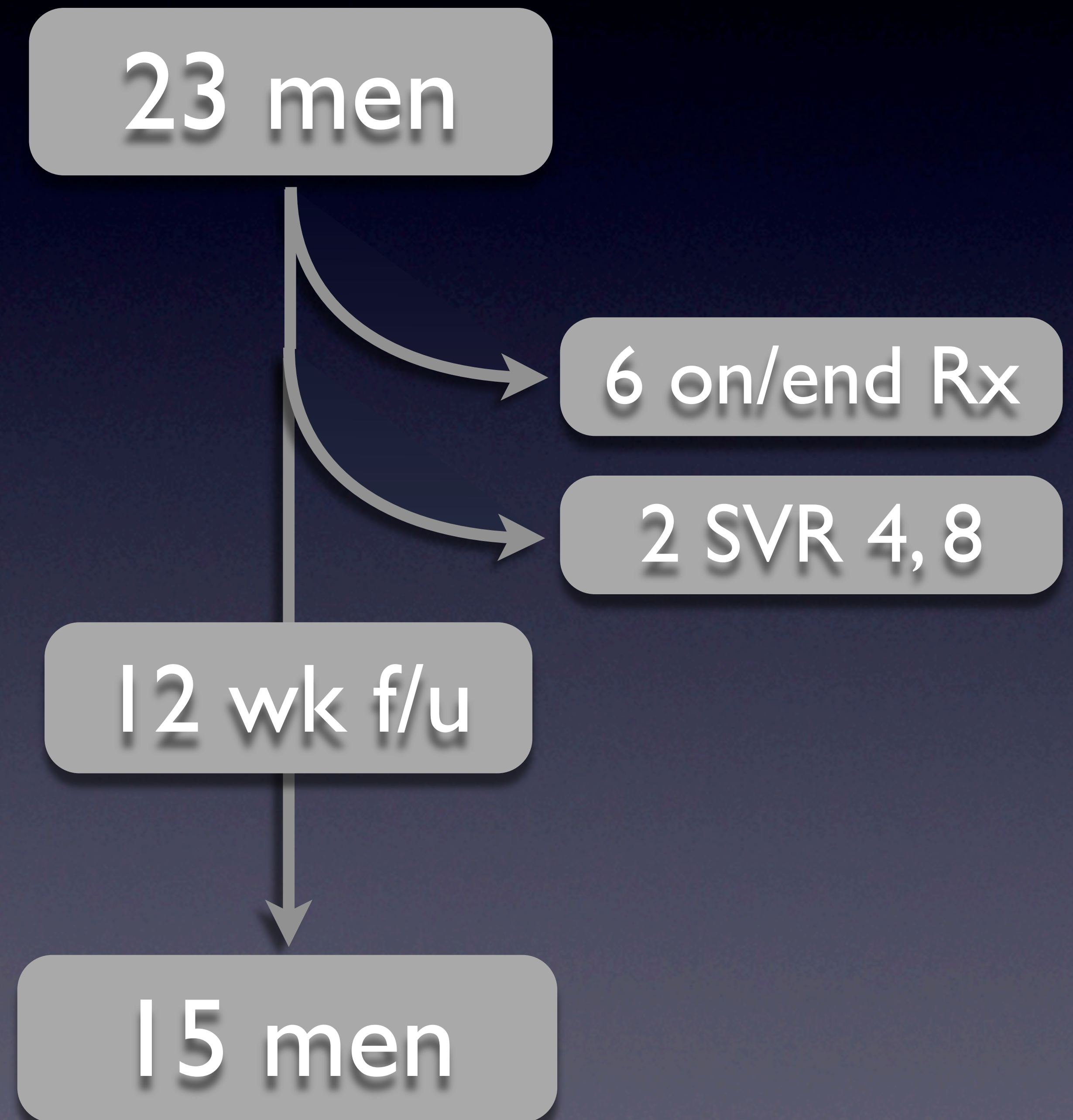


Course

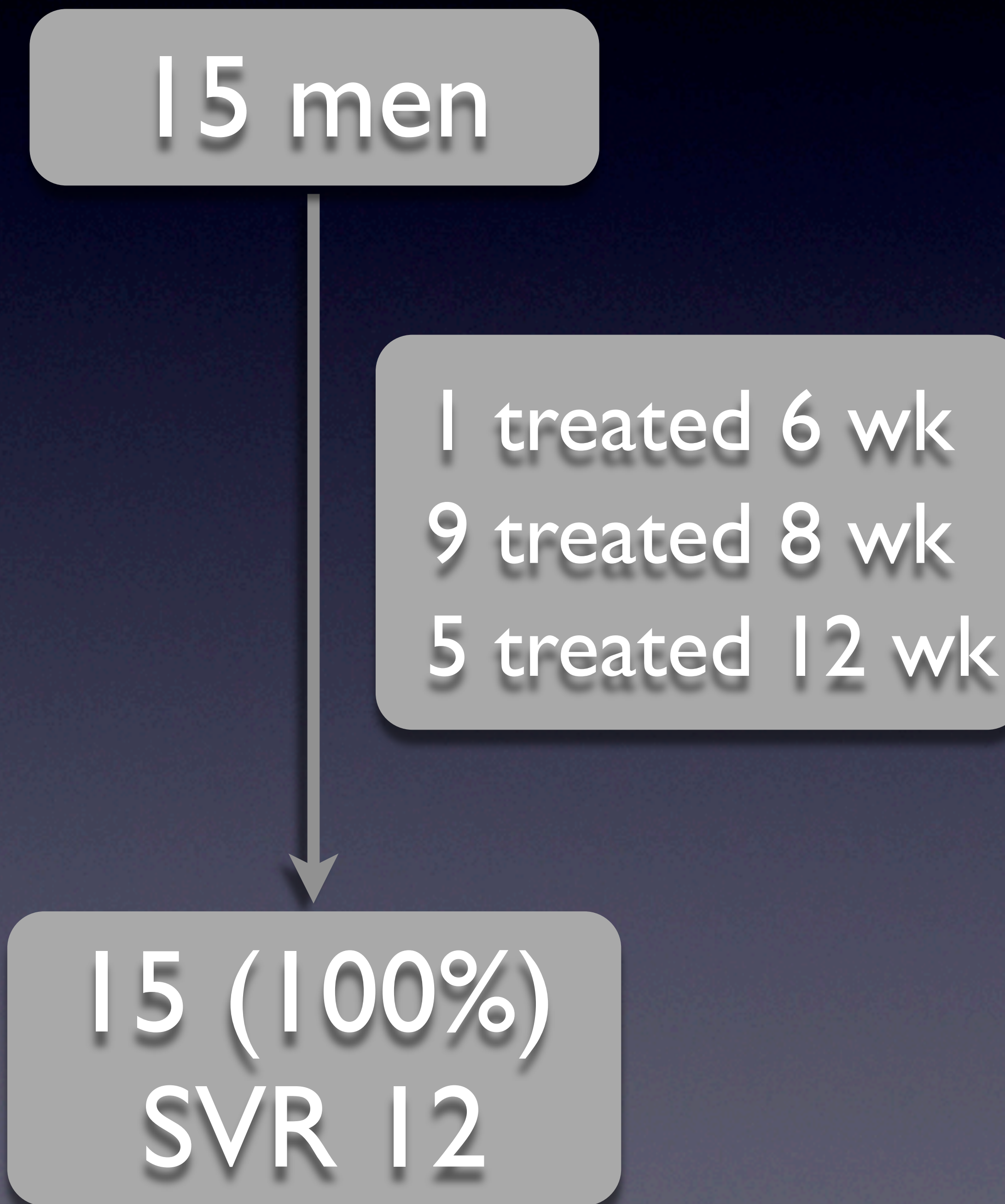


SOF/LDV for Acute HCV in HIV+ MSM

- Sinai enrollment started Oct '14



SOF/LDV for Acute HCV in HIV+ MSM



When to Treat, with What, How Long?

- I apply for drugs as soon as I get genotype back
  - Because it takes ~4 weeks for approval from commercial insurance
- I then treat immediately if still viremic
- I treat with the best drug for the genotype
- I treat for short-course when I'm sure the patient is still in the "enhanced treatment response" phase

Conclusions

- MSM on PrEP are at risk for acquiring HCV through sex
  - Presumably from sex with HIV+ MSM
- Monitor LFTs quarterly along with HCV Ab testing

Volk CID 2015

Conclusions

- Obtain LFTs and HCV Ab with all STI screening outside of quarterly visit
- Acute (seronegative) HCV can masquerade as anything else that causes liver injury (e.g. syphilis, alcohol)
  - Consider HCV VL testing if LFTs elevated and Ab neg

HCV

TAKE CARE

SCHIFFERS

MSM are at risk for HCV:

- Educate MSM
- Educate providers
- Test LFTs, Ab quarterly
- Treat early to:
  - shorten duration
  - increase cure rate
  - decrease further infections