



UMC Utrecht

Management of acute HCV infection

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Conflicts of interest

- Advisory board
 - Abbvie, Janssen, BMS, Roche, MSD
- Speaker's bureau
 - Gilead

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Sort of classical “patient” definition of acute HCV

- Occurrence of an viral hepatitis-like disease after exposure to the HCV virus
- Presence of the infection up until 6 months after transmission/ symptoms



Current case definition of acute HCV

HCV IgG –
or
HCV-RNA –

12 months

HCV IgG +
or
HCV-RNA +

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normal ALT
and
no change in HAART

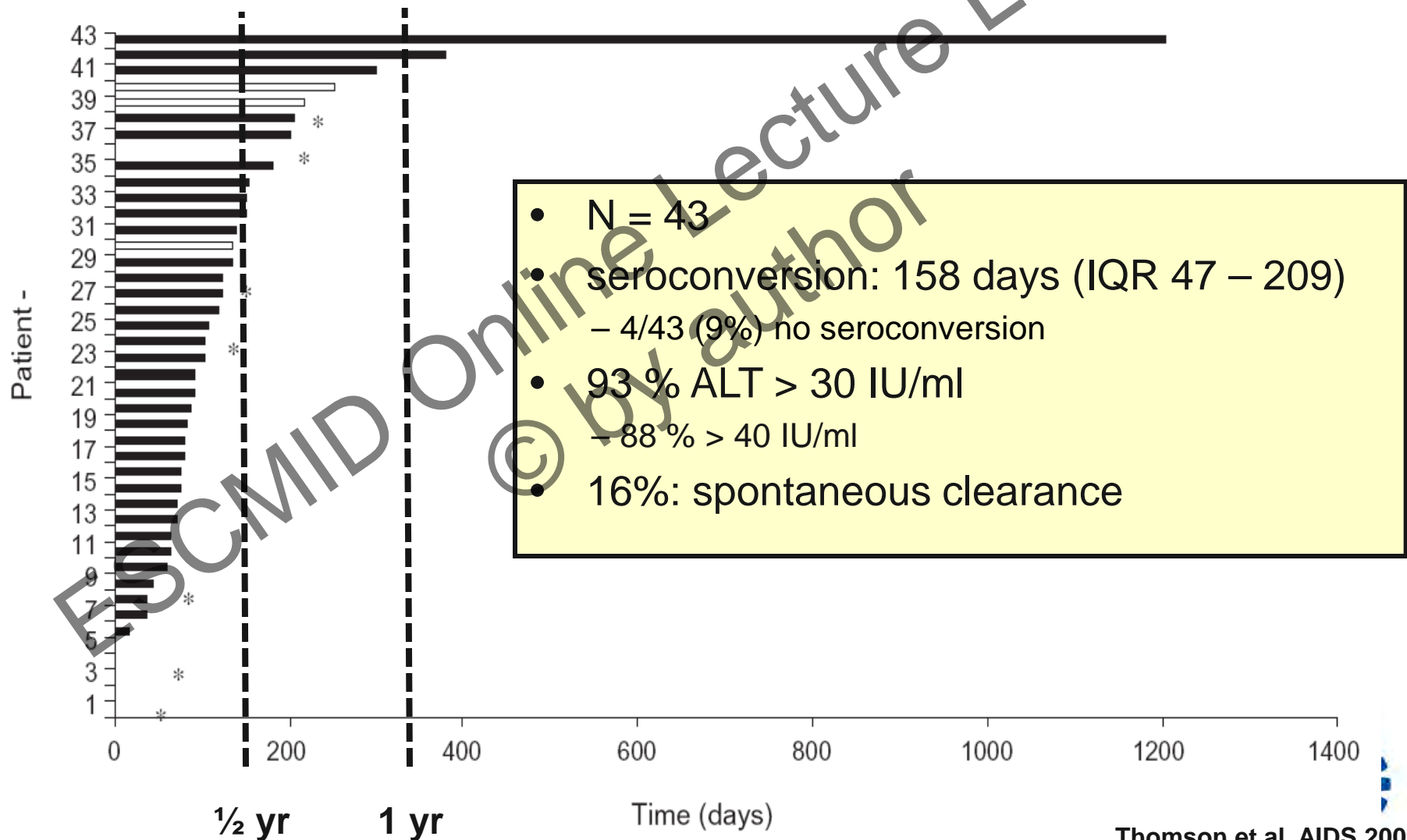
6 months

HCV-RNA +
with
ALT rise

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screening for acute HCV in HIV+ patients

time between 1^e positive HCV-PCR and HCV-serology



Epidemiology and transmission

HCV MONO-INFECTION

HIV HCV COINFECTION



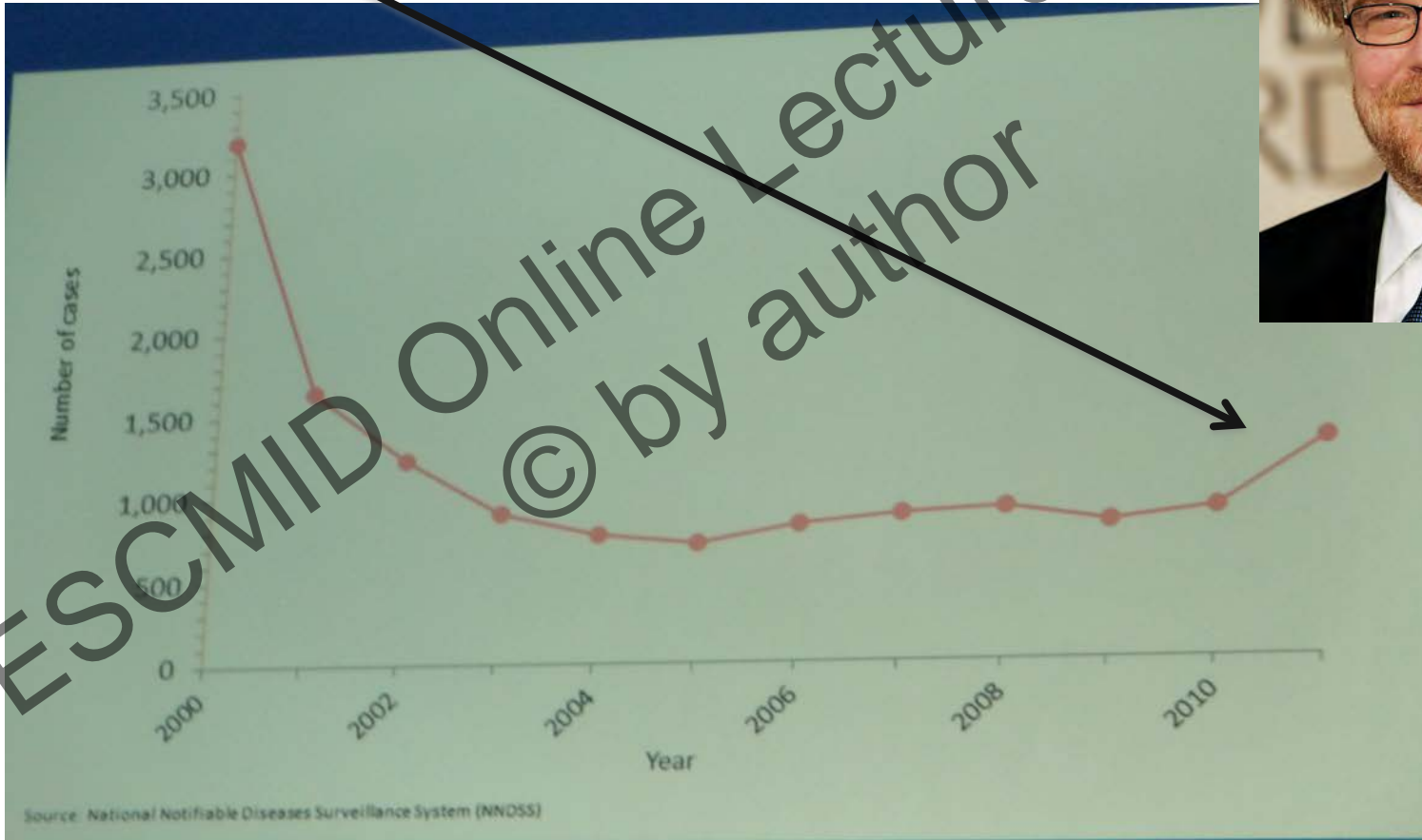
DIRTY NEEDLES KILL!



OKAY, SO MUCH FOR SAFE SEX.

Epidemiology of acute HCV mono-infection

- iv drug use driving force



(CDC, "Viral Hepatitis Surveillance United States, 2011", p. 50)



Increase of acute HCV in HIV+ patients in Europe

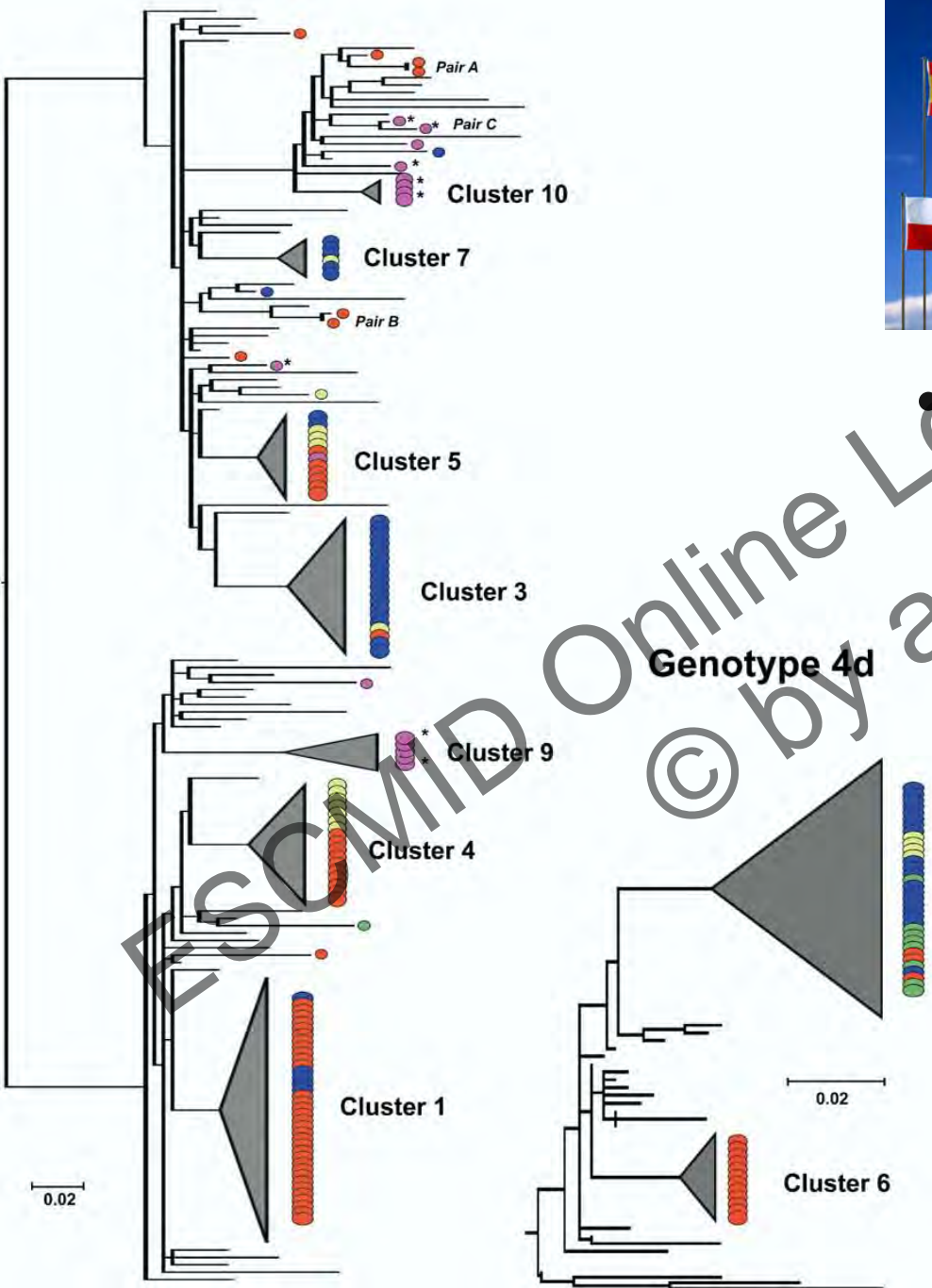
Sexual transmission?
Reports of acute hepatitis C in HIV+ MSM



1. Browne RE, *et al.* 2nd IAS 2003; Abstract 972 2. Giraudon I *et al.* STI 2007;84:111-116, 3. Ghosn *et al.* STI 2006; 82: 458-460 ; 4. Gambotti *et al.* Euro Surveill 2005; 10: 115-117; 5. Gotz *et al.* AIDS 2005; 19: 969-974. 6. Vogel M *et al.* J Viral Hepat 2005; 12: 207-211; 7. Matthews GV AIDS 2007;21:2112-2113; 8 Luetkemeyer A *et al.* JAIDS 2006;41:31-36



Genotype 1a



- *European unity:*
 - networks of MSM communities with transmission of acute HCV

- Netherlands
- France
- Germany
- England



Possible explanations for increase of acute HCV

- Ulcerative coinfections:
 - LGV
 - syphilis
 - herpes

- changed possibilities in the 20th century
 - internet-communities
 - low-budget airlines

- Higher number of sexual partners
 - unprotected anal sex

- other sexual techniques
 - fisting
 - group sex
 - sharing of sex toys

- Sex with drug use
 - injecting drugs
 - anal drug use
 - party drugs: less control → bleeding



Risk on sexual transmission in discordant couples is minimal

HEPATOLOGY

Official Journal of the American Association for the Study of Liver Diseases



VIRAL HEPATITIS

Sexual Transmission of Hepatitis C Virus Among Monogamous Heterosexual Couples: The HCV Partners Study

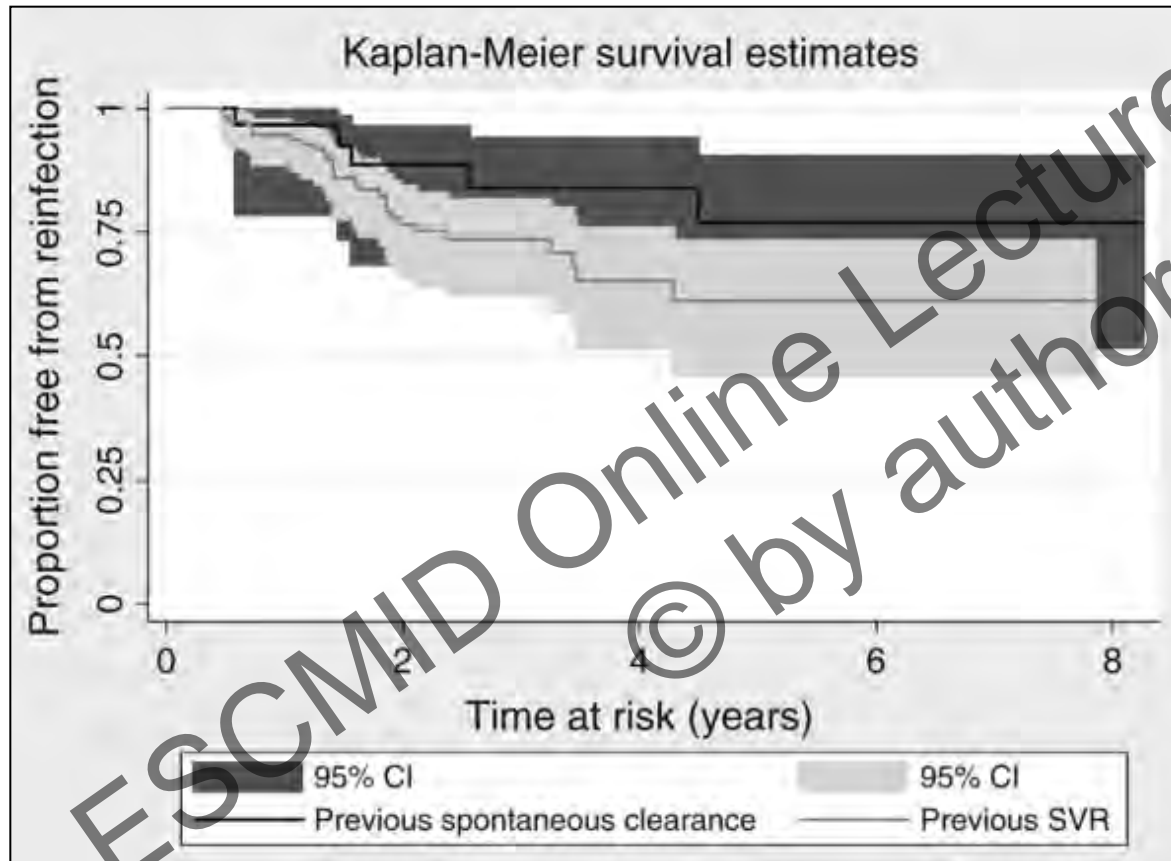
Norah A. Terrault,¹ Jennifer L. Dodge,¹ Edward L. Murphy,^{1,2} John E. Tavis,³ Alexi Kiss,³ T. R. Levin,⁴ Robert G. Gish,² Michael P. Busch,^{1,2} Arthur L. Reingold,⁶ and Miriam J. Alter⁷

The efficiency of hepatitis C virus (HCV) transmission by sexual activity remains controversial. We conducted a cross-sectional study of HCV-positive subjects and their partners to estimate the risk for HCV infection among monogamous heterosexual couples. A total of 500

- HCV prevalence in partners is 4%
 - in 3 couples (0.6%) HCV was related
 - 1 in 190,000 sexual contacts



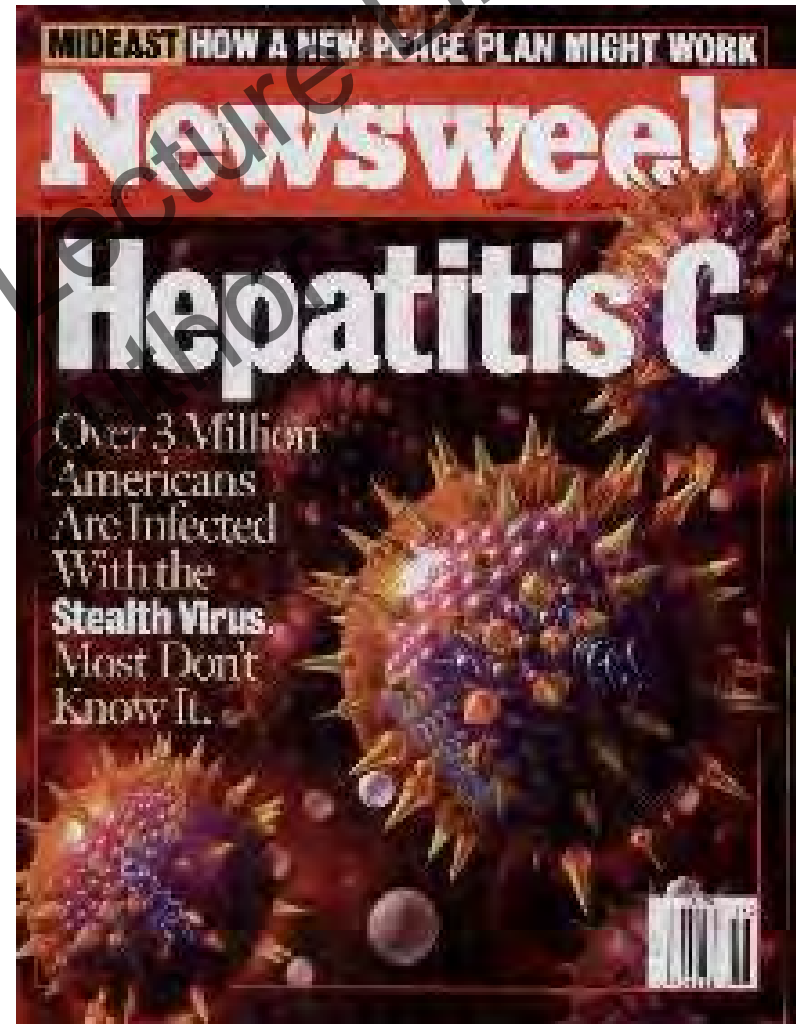
Similarly high reinfection rate in the UK



- 191 HIV+ MSM with acute HCV
- 32 reinfections of 145 cases
 - 25% reinfection within 2 years
- 17 again treated or spontaneous clearance



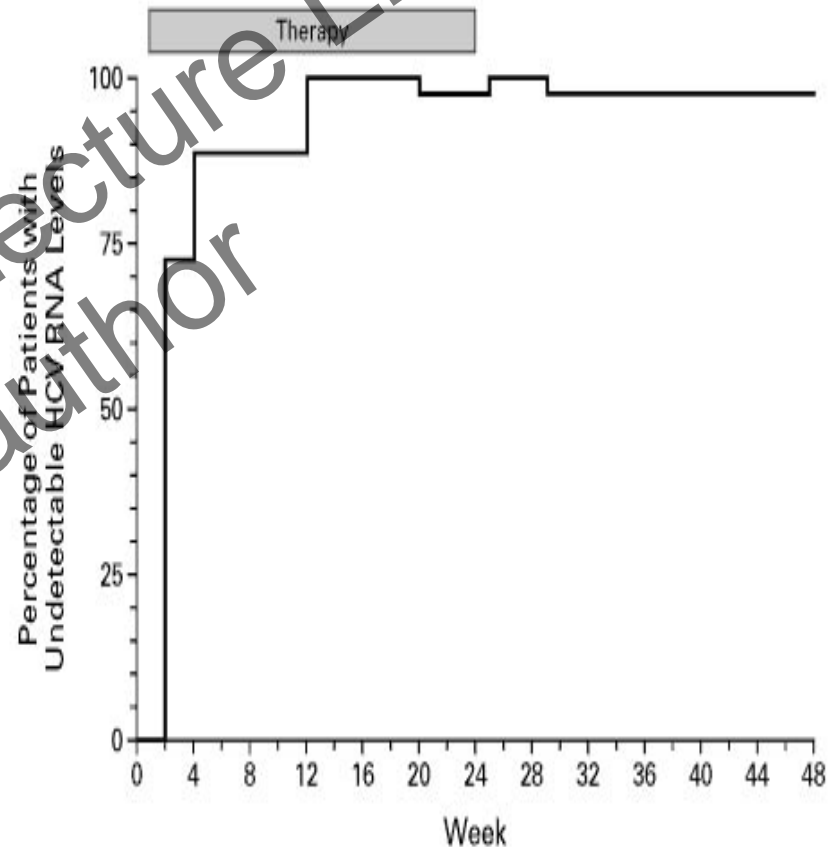
Treatment of acute HCV



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Treatment of acute HCV mono-infection

- Jaeckel et al.
 - 44 patients
 - 24 wks interferon alfa-2b
 - 98% SVR
- more recent studies
 - peginterferon-alfa mono
 - SVR 72-94%
- SVR is higher in symptomatic versus asymptomatic patients (78% versus 69%)



Jaeckel E, et al. N Engl J Med 2001; 345:1452–1457.

Calleri G, et al. J Viral Hepat 2007; 14:116–121.

Kamal SM, et al. Hepatology 2006; 43:923–931.

Santantonio T, et al. J Hepatol 2005; 42:329–333.

Wiegand J, et al. Hepatology 2006; 43:250–256.

Issues of uncertainty.....

- timing to initiate therapy
 - await spontaneous clearance (higher chance with IL28B CC-genotype)
 - use activated immune system (broad and strong T cell response favourable for clearance)
- pegIFN-alfa mono-therapy versus pegIFN-alfa/ ribavirin combination therapy
- length of therapy 16 or 24 weeks
 - with favourable viral kinetics (RVR) than 16 weeks is enough



Treatment of acute hepatitis C virus infection in HIV+ patients: Dutch recommendations for management

J.E. Arends^{1*}, F.A.E. Lambers², J.T.M. van der Meer³, G. Schreijf⁴, C. Richter⁵, K. Brinkman⁶, A.I.M. Hoepelman¹, on behalf of the Netherlands Society for AIDS physicians (NVAB)

¹Department of Internal Medicine and Infectious Diseases, University Medical Center Utrecht (UMCU), Utrecht, the Netherlands, ²Cluster of Infectious Diseases, Department of Research, Public Health Service of Amsterdam, the Netherlands, ³Department of Internal Medicine, Division of Infectious

- pegIFN-alfa and ribavirine (WB) combination-therapy
- in case of RVR or EVR treatment duration is 24 weeks
- when possible, start therapy 4 weeks after the diagnosis



Some caution in interpreting the data



number of patients
per study is limited

$$\frac{256 \text{ patients}}{15 \text{ studies}} = 17,7 \text{ pt/studies}$$





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