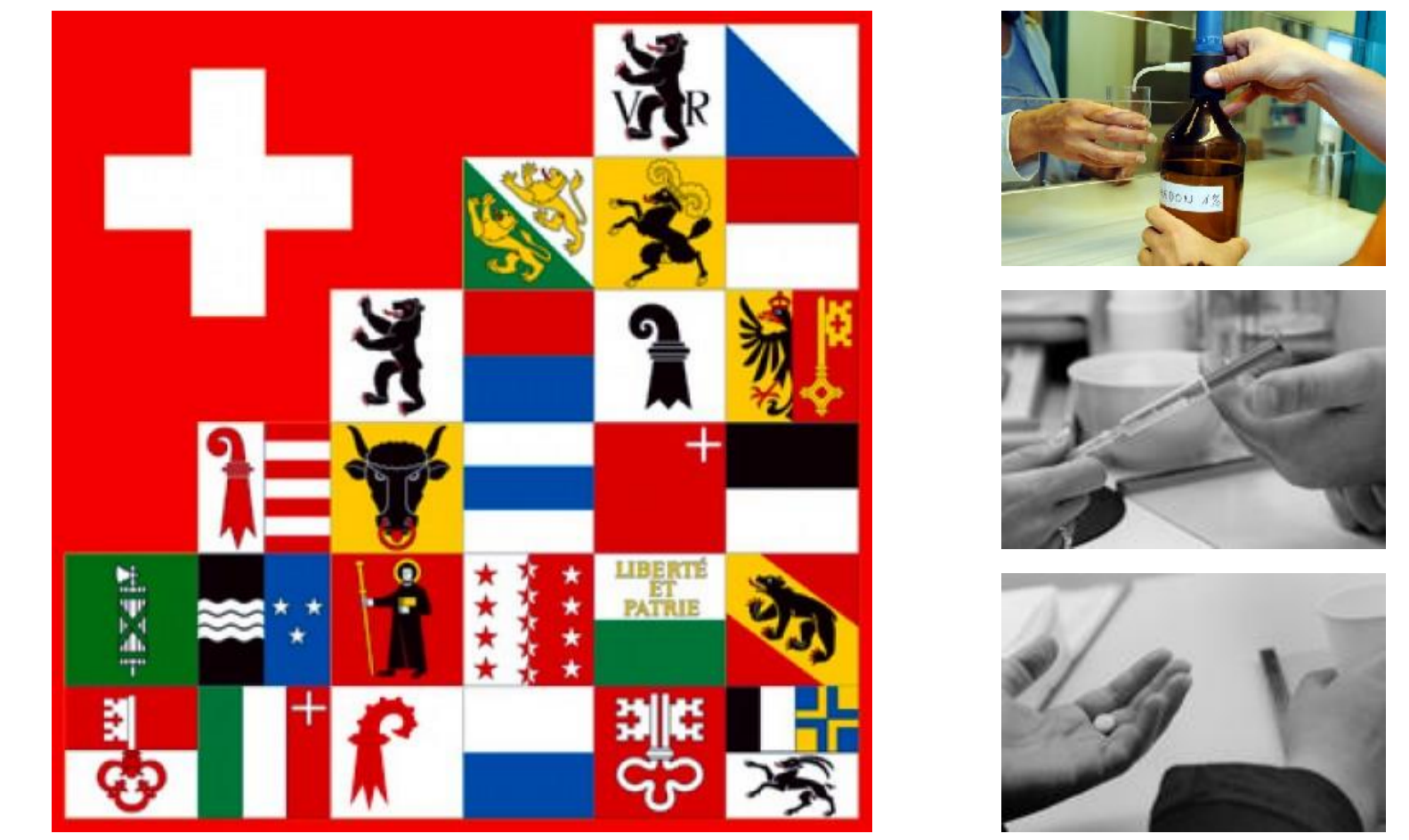


The HIV- and HCV-cascade in Swiss opioid agonist treatment (OAT) patients – the SAMMSU-cohort

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BACKGROUND

- To end the HIV/AIDS-epidemic by 2030, until 2020, 90% of all HIV-infected people should be diagnosed, 90% of those diagnosed should receive antiretroviral treatment (ART) and 90% of those treated should achieve viral suppression (90-90-90 targets of UNAIDS).
- To reach HCV-elimination by 2030, the WHO considers 80% treatment-uptake to be necessary. However, a 90-90-90 target is also discussed for viral hepatitis.

OBJECTIVES

- To describe the HIV- and HCV-cascade in Swiss opioid agonist treatment (OAT) patients and compare the HCV-cascades in HIV-negative and HIV-positive people.

METHODS

- The Swiss Association for the Medical Management in Substance Users (SAMMSU)-Cohort is an open cohort with yearly follow-up enrolling OAT patients in eight different centres throughout Switzerland.

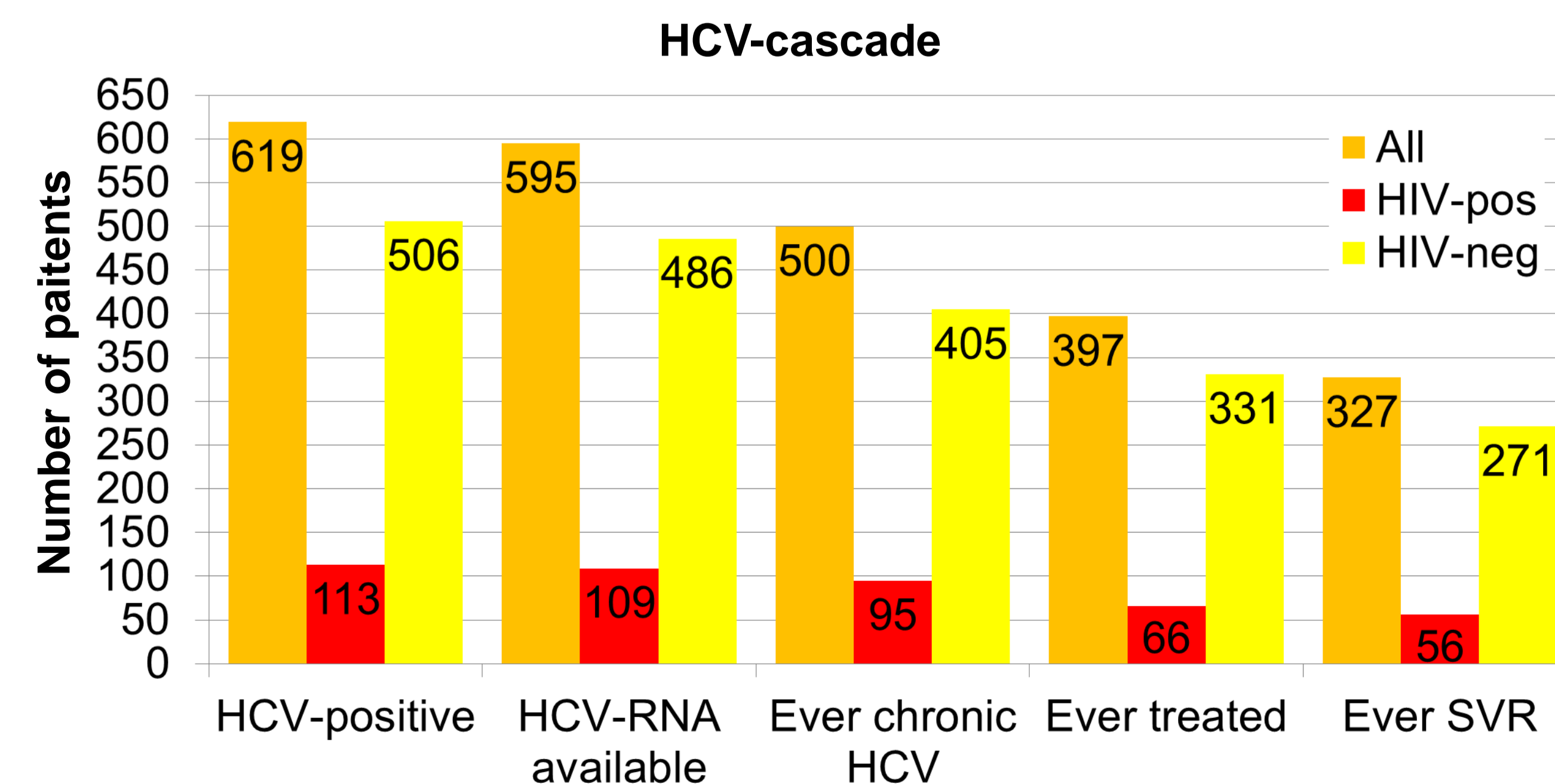
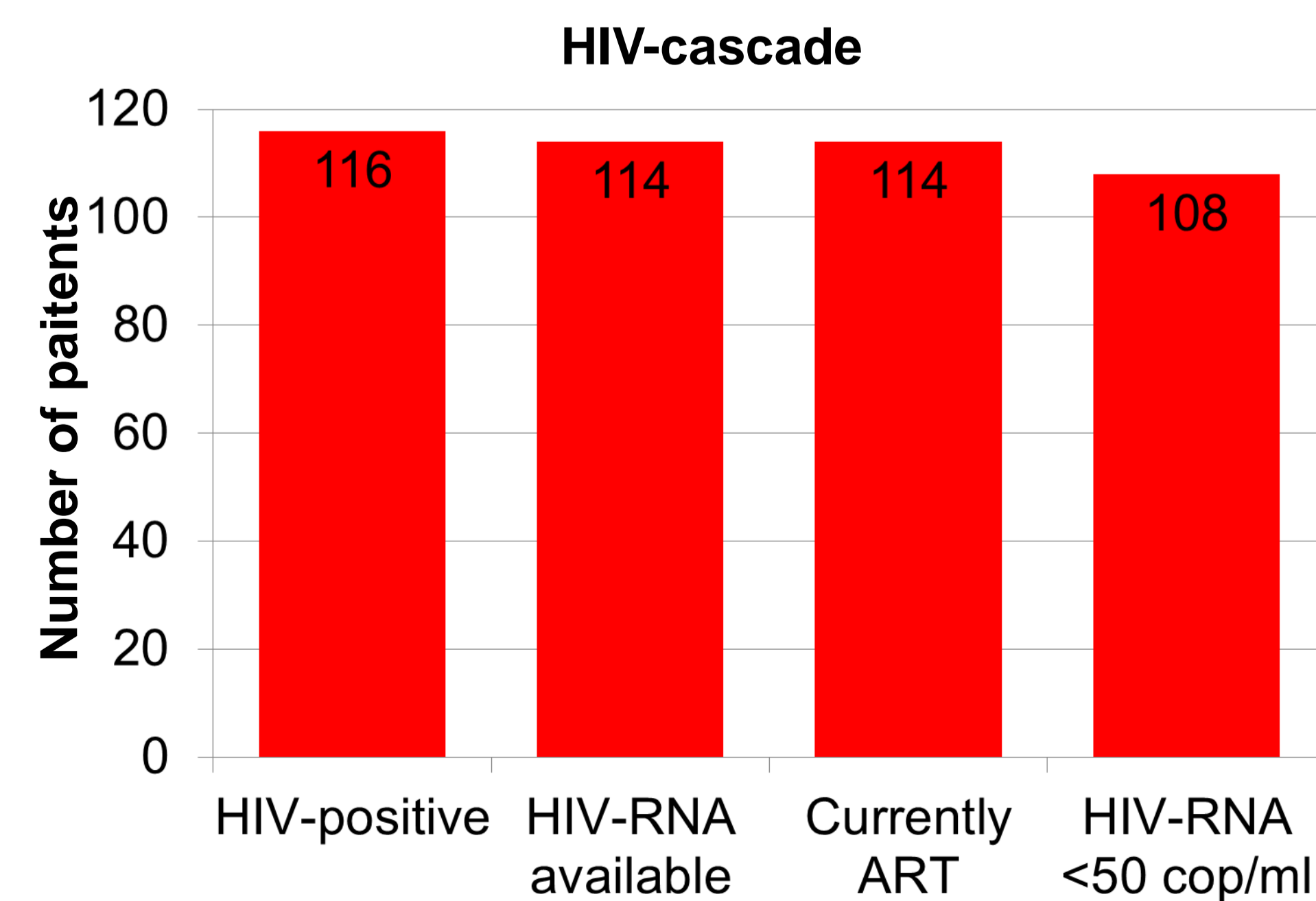
RESULTS

- Between 2014 and 05/2019, 906 patients have been enrolled (78% male, median age: 48 years, 81% ever intravenous drug use).
- For 904 (99.8%), the HIV/HCV-serostatus was known. HIV- and HCV-seroprevalence were 12.8% and 68.5%, respectively.
- Of the 116 HIV-positive patients, 114 (98.3%) received ART, with 108 (94.7%) of them being virologically suppressed (HIV-RNA <50 cop/ml), resulting in an overall HIV-RNA-prevalence of 0.9% (8/906).

Patient characteristics

	Total (n=906)	HIV-pos.* (n=116)	HCV-pos.* (n=619)	HIV- & HCV-neg. (n=283)
Male (%)	77.5 (702/906)	70.7 (82/116)	76.6 (474/619)	79.9 (226/283)
Current age (y) (Median, IQR)	48 (41-53)	52 (46-56)	50 (44-54)	41 (33-50)
Ever IDU (%)	80.9 (720/890)	97.3 (107/110)	95.0 (574/604)	51.2 (144/281)
Ever intranasal drug use (%)	89.5 (789/882)	90.8 (99/109)	91.3 (544/596)	85.8 (241/281)
Ever heroin (%)	97.9 (874/893)	100.0 (110/110)	99.0 (599/605)	95.8 (271/283)
Ever cocaine (%)	92.5 (822/889)	95.5 (105/110)	94.5 (570/603)	88.6 (249/281)
Ever benzo-diazepine (%)	68.2 (597/876)	76.1 (83/109)	72.3 (430/595)	59.4 (164/276)
Ever cannabis (%)	91.3 (808/885)	94.5 (103/109)	93.0 (558/600)	88.2 (247/280)
Ever needle abscess (%)	14.6 (99/679)	34.0% (32/94)	18.9 (95/503)	1.7 (3/172)
Year of first IDU:	(n=700)	(n=106)	(n=559)	(n=139)
1970-1979	6.0 (42)	9.4 (10)	7.3 (41)	0.7 (1)
1980-1989	31.3 (219)	46.2 (49)	36.5 (204)	10.8 (15)
1990-1999	31.0 (217)	33.0 (35)	32.6 (182)	24.5 (34)
2000-2009	20.7 (145)	9.4 (10)	18.3 (102)	30.9 (43)
2010-2019	11.0 (77)	1.9 (2)	5.4 (30)	33.1 (46)

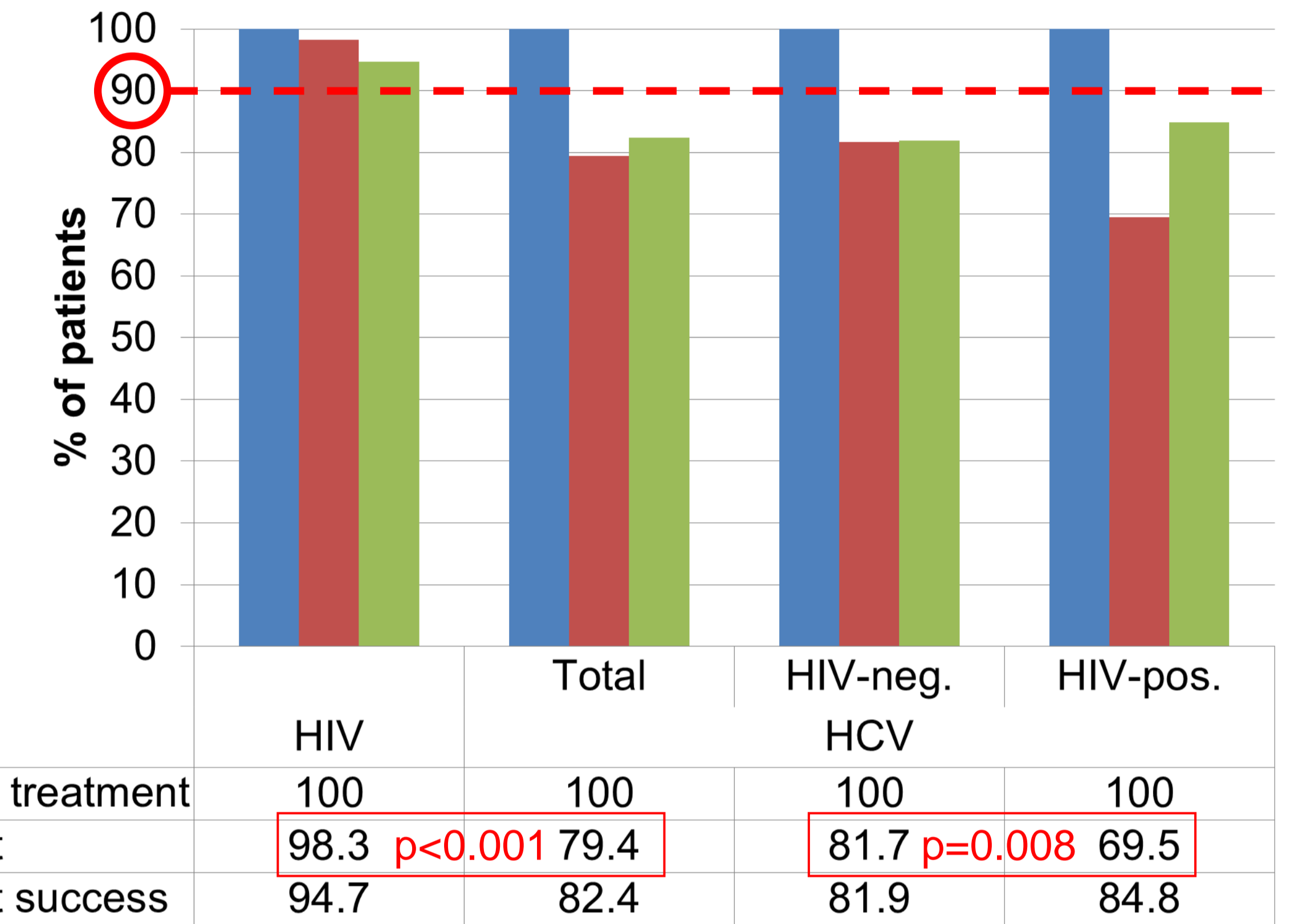
*includes 113 HIV/HCV-coinfected patients, IQR = interquartile range, IDU = intravenous drug use



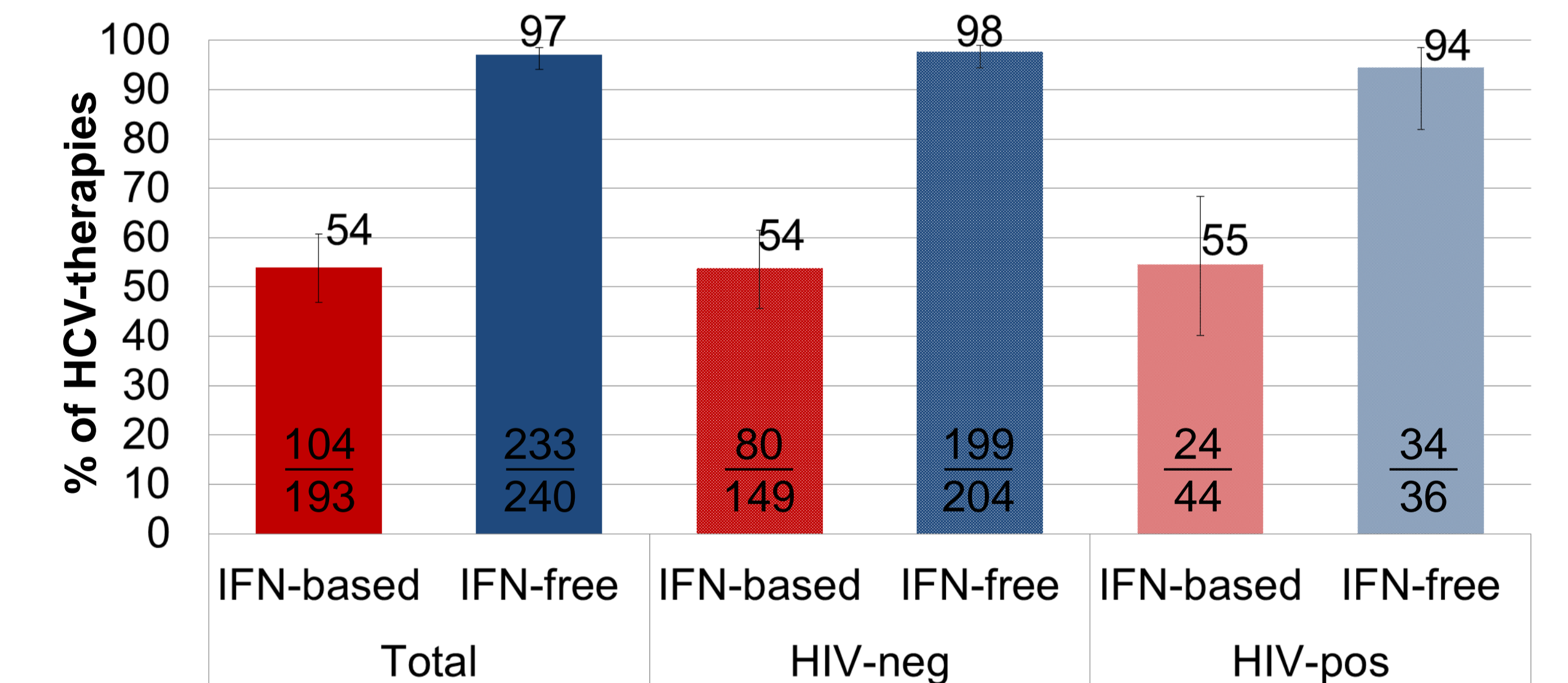
- For 96.1% (595) of the 619 HCV-positive patients, the HCV-RNA-status was known. 397 (79.4%) of the 500 patients with ever chronic hepatitis C ever received treatment (interferon (IFN)-based or interferon-free).
- In 327 (82.4%) of them sustained virological response (SVR) was documented.
- The overall HCV-RNA-prevalence was 13.8% (125/906).
- In HIV-positive patients (all but three HCV-coinfected), HCV-RNA-prevalence was higher: 26.7% (31/116) versus 11.9% (94/790) (p<0.001) and HCV-treatment-uptake lower: 69.5% (66/95) versus 81.7% (331/405) (p=0.008).

- Until 05/2019, a total of 484 HCV-therapies was documented in the SAMMSU-database: 40.3% (195) IFN-based (including regimens containing boceprevir, telaprevir or sofosbuvir) and 59.7% (289) IFN-free.
- Outcome was known for 99.0% (193) of the IFN-based, but only for 83.0% (240) of the IFN-free treatments (25 ongoing, 24 with SVR-control pending).
- Of the 400 HCV-therapies in HIV-negative patients, 62.3% (249) were IFN-free, compared to only 47.6% (40) of the 84 HCV-therapies in HIV-positive patients (p=0.013).
- The SVR-rate was 1.8-fold higher with IFN-based compared to IFN-free therapy (97.1% (233/240) versus 53.9% (104/193), p<0.001).
- For IFN-free HCV-therapies, the SVR-rate was similar in HIV-positive and HIV-negative patients: 94.4% versus 97.5% (p=0.308).

The second and third 90 of the 90-90-90 target for HIV and HCV (overall and by HIV-status)



Proportion of HCV-therapies with SVR, if outcome known



CONCLUSIONS

- In Swiss OAT patients of the SAMMSU-cohort, the 90-90-90 target is met for HIV, but not for HCV.
- The WHO-goal of 80% HCV-treatment-uptake has been achieved in HCV-mono-infected, but not in HIV-HCV-coinfected patients.
- Accordingly, one out of four HIV-positive patients is still HCV-RNA-positive (i.e. infectious) compared to only one out of eight HIV-negative patients.

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