

12° CONGRESSO NAZIONALE

Italian Conference on
AIDS and Antiviral Research*Reach out
for including all*

12-16 ottobre 2020

DIGITAL EDITION

Decrease of prevalence of subjects harboring replicating HCV among PLWHIV in Italy: results from the NoCo study

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Conceived by Professor Mauro Moroni

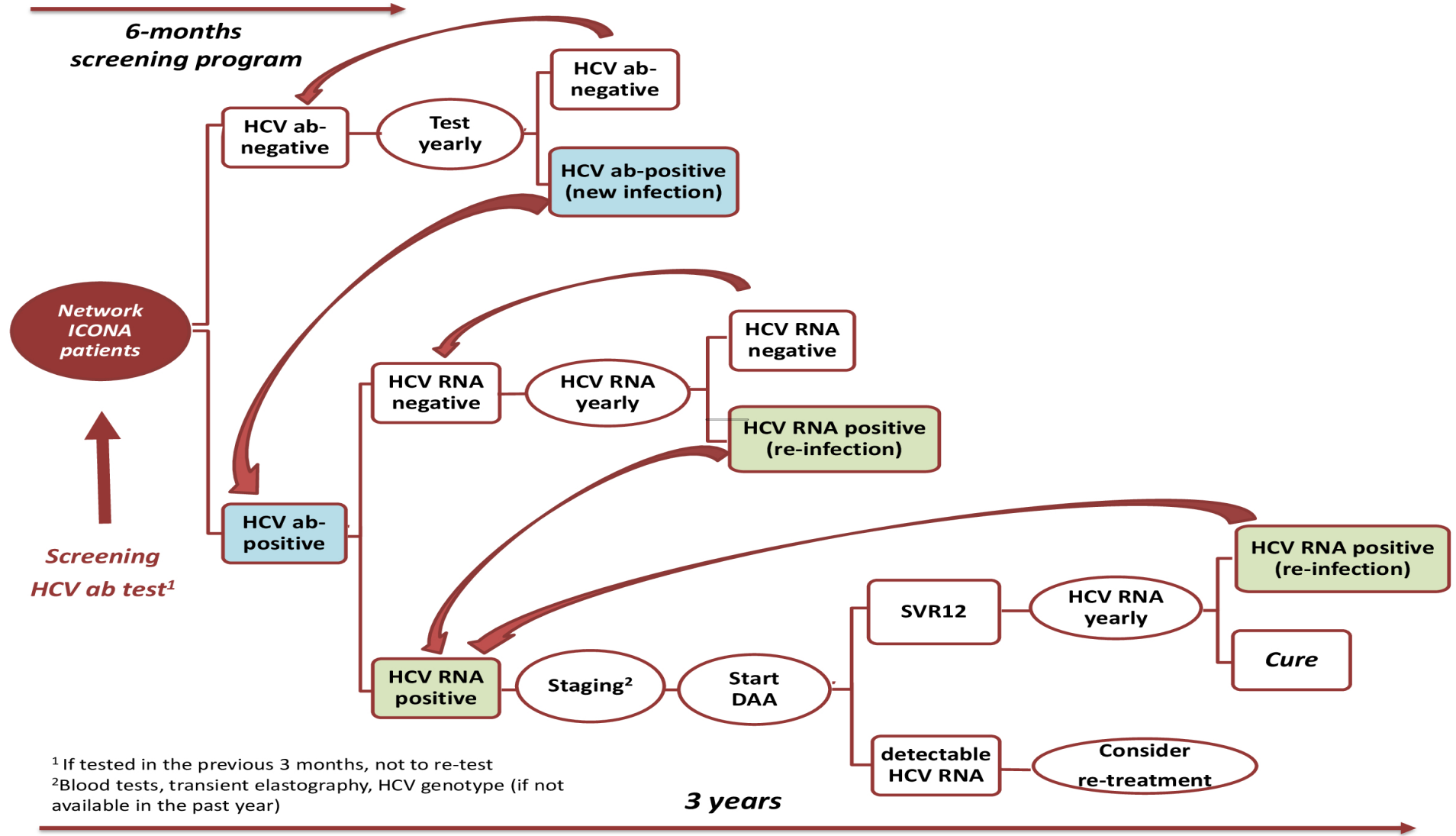
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NoCo Project (No Coinfections)

- The general aim of the **NoCo Project** is to evaluate the possibility to obtain **HCV elimination** in the **HIV/HCV** co-infected population in Italy, **over a 3-year period** as result of extensive HCV testing and DAA treatment.
- The program collects data on HCV screening and anti-HCV treatment, involving 40 clinical sites, participating in the **ICONA Network**, covering approximately 65.000 patients (≈50% PLWH in Italy)
- Strategies:
 - ✓ **Extensive DAA treatment**
 - ✓ **Increased HCV testing** (screening program)
 - ✓ **Counselling** programs to prevent new infections/re-infections

NoCo Project



¹ If tested in the previous 3 months, not to re-test
² Blood tests, transient elastography, HCV genotype (if not available in the past year)



The aims of the present analysis is:

- to estimate the changes of active HCV infection (HCV-RNA pos) prevalence from 2017 to 2020, in PLWH in care in the centers of Icona cohort
- to estimate the incidence of new HCV infections and re-infections
- to estimate the DAA-uptake and response

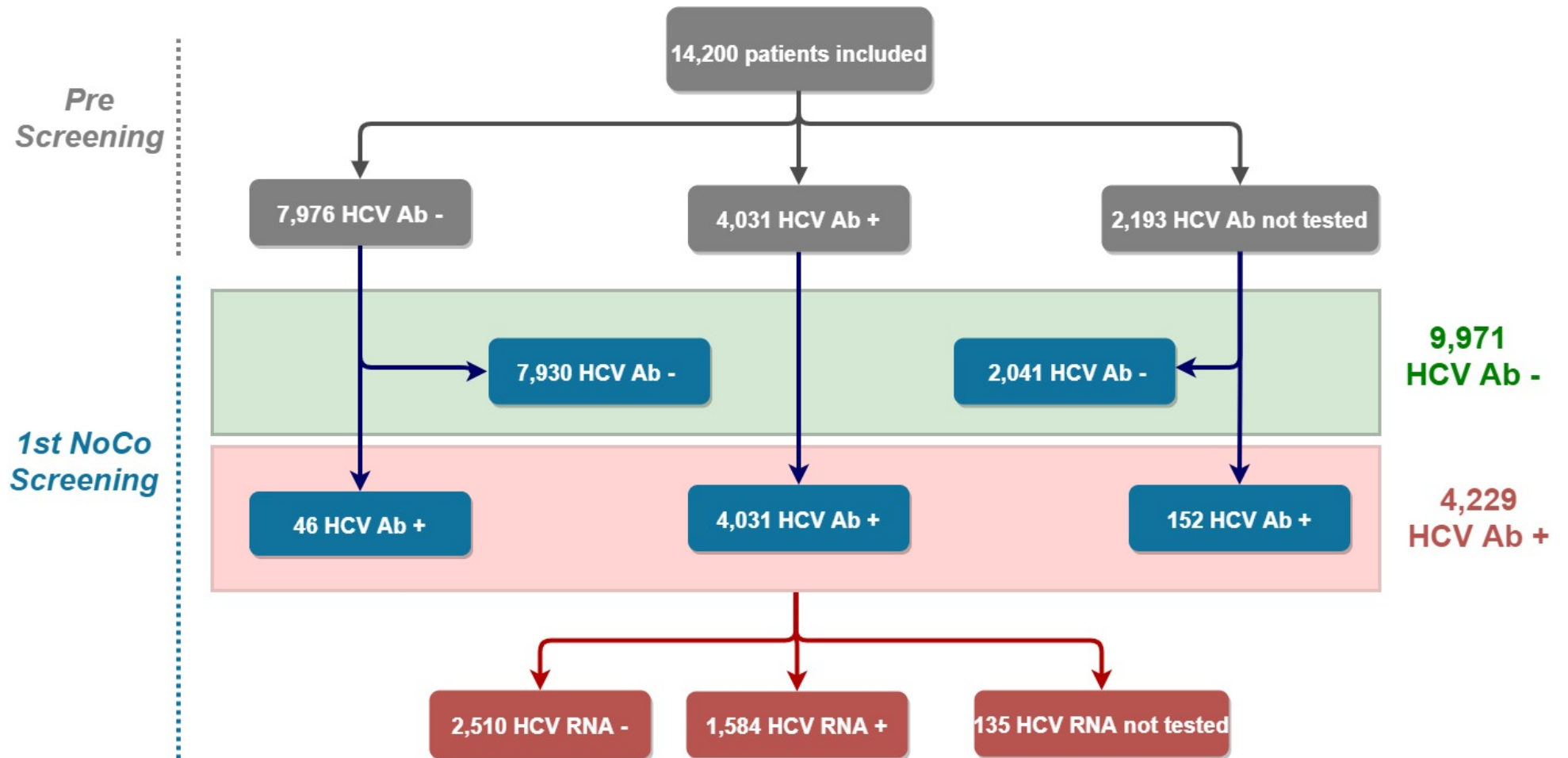


Patients and Methods

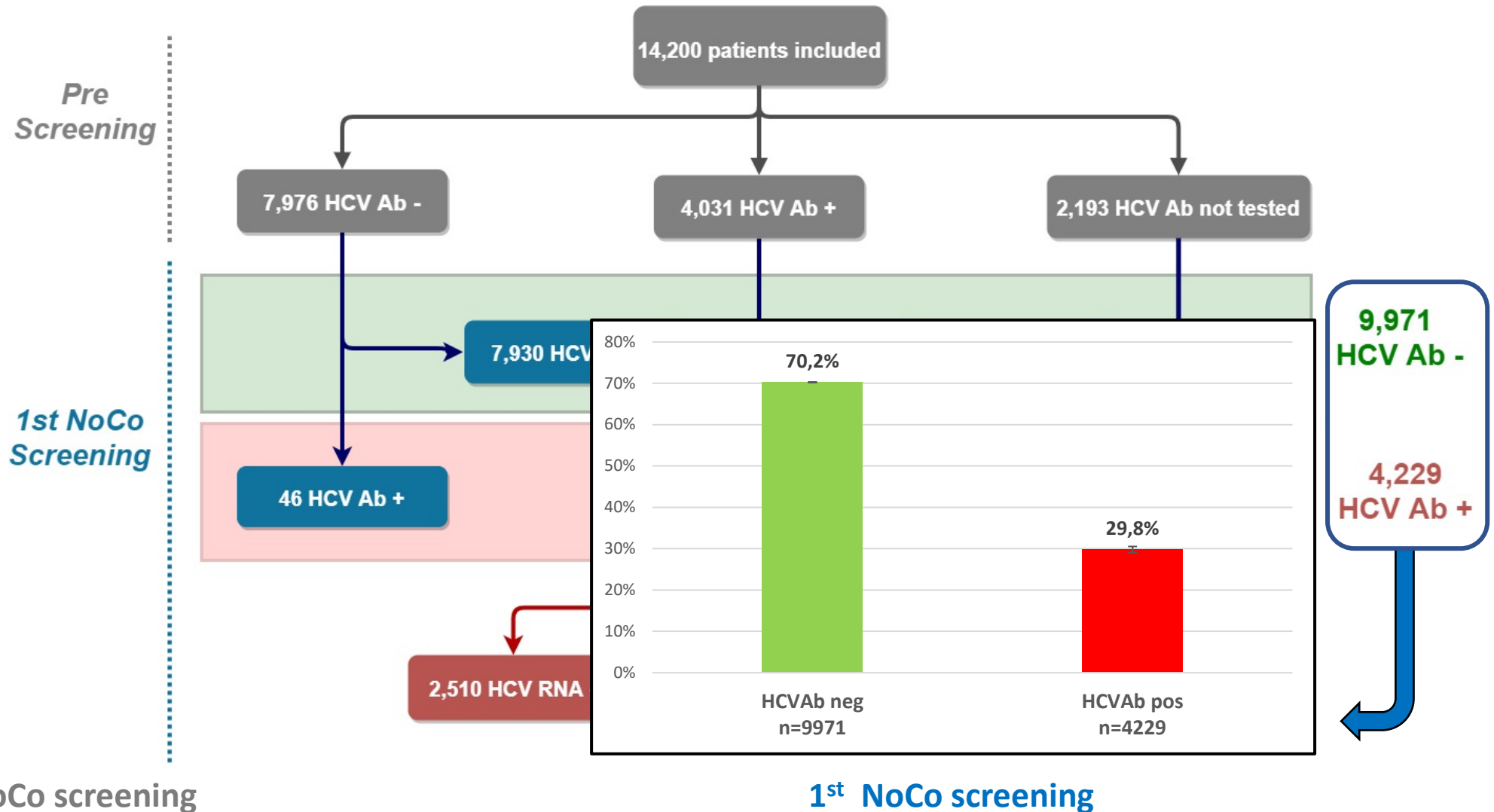
- Cross-sectional and longitudinal analyses within the NoCo study.
- Subjects included are those screened for HCV from September 2017 to October 2020, independent of their HCV status



Results- 1st NoCo screening



1st NoCo screening: prevalences HCVA b

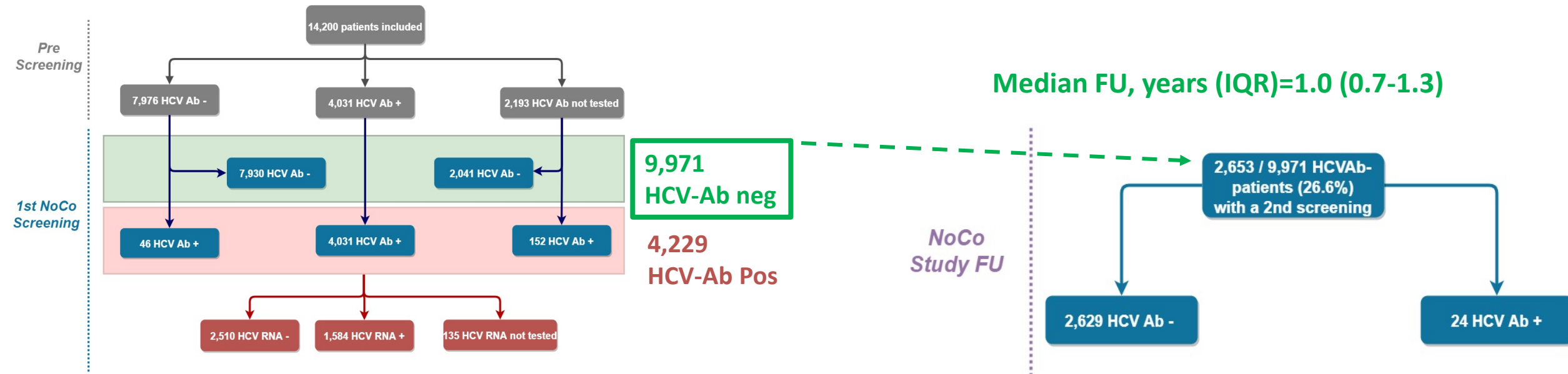


Patients' characteristics at 1st NoCo screening on 14,200 patients

	HCVAb neg N=9,971 (70.2%)	HCVAb pos N=4,229 (29.8%)	p-value	Total N=14,200 (100.0%)
Age, years, Median (IQR)	46 (38-54)	54 (49-57)	<.001	50 (41-56)
<30	848 (8.5%)	51 (1.2%)	<.001	899 (6.3%)
30-39	2,104 (21.1%)	230 (5.4%)		2,334 (16.4%)
40-49	3,002 (30.1%)	819 (19.4%)		3,821 (26.9%)
50-59	2,649 (26.6%)	2,552 (60.3%)		5,201 (36.6%)
≥60	1,368 (13.7%)	577 (13.6%)		1,945 (13.7%)
Gender, Male, n(%)	7,800 (78.2%)	3,186 (75.3%)	<.001	10,986 (77.4%)
Nationality, Italian, n(%)	7,812 (78.3%)	3,995 (94.5%)	<.001	11,807 (83.1%)
Mode of HIV Transmission, n(%)			<.001	
Heterosexual	4,168 (41.8%)	547 (12.9%)		4,715 (33.2%)
IDU	285 (2.9%)	2,944 (69.6%)		3,229 (22.7%)
MSM	4,229 (42.4%)	502 (11.9%)		4,731 (33.3%)
Other/Unknown	1,289 (12.9%)	236 (5.6%)		1,525 (10.7%)
On ART, n(%)	7,676 (77.0%)	3,676 (86.9%)	<.001	11,352 (79.9%)
Years from HIV diagnosis	6.6 (2.1-13.1)	22.8 (13.4-30.4)	<.001	9.6 (3.3-20.2)
Year 1st NoCo Screening			<.001	
2017	156 (1.6%)	112 (2.6%)		268 (1.9%)
2018	4,639 (46.5%)	2,705 (64.1%)		7,344 (51.7%)
2019	4,661 (46.7%)	1,328 (31.4%)		5,989 (42.2%)
2020	515 (5.2%)	84 (2.0%)		599 (4.2%)



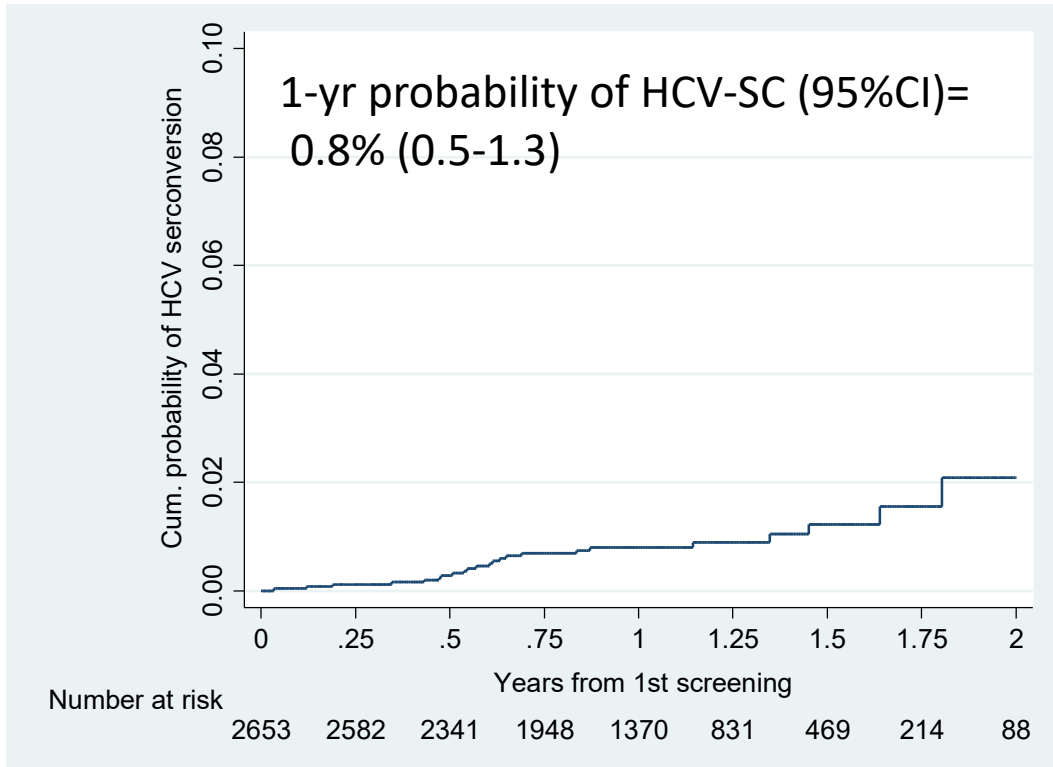
Incidence of HCV seroconversions during NoCo Study



	n subjects	PYFU	HCV seroconversions	IR x 100 PYFU	95%CI
Heterosexual	856	912	7 (0.8%)	0.77	0.36-1.61
IDU	93	98	0 (0.0%)	.	.
MSM	1,441	1527	16 (1.1%)	1.05	0.64-1.70
Other/Unknown	263	265	1 (0.4%)	0.38	0.05-2.67
Totals	2653	2803	24 (0.9%)	0.86	0.57-1.28



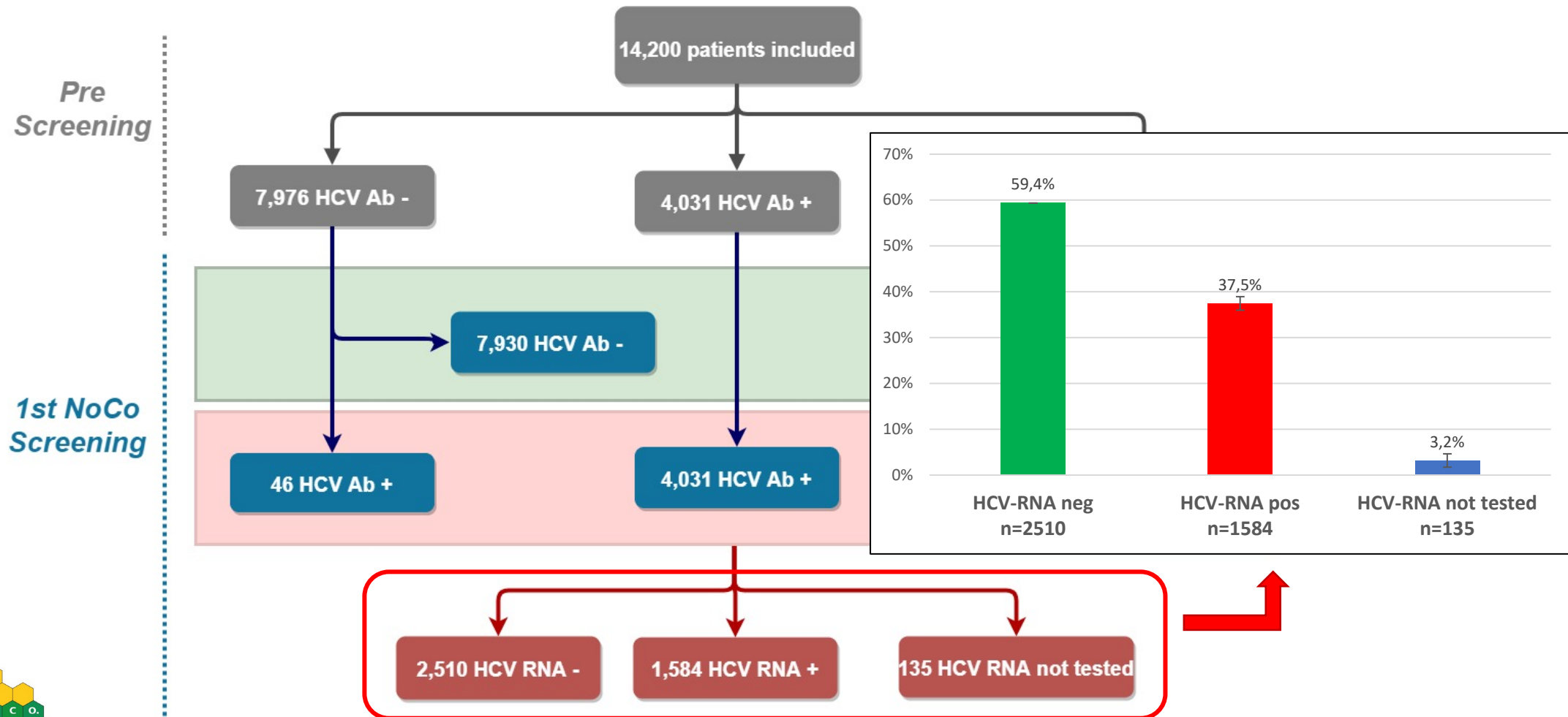
Incidence Seroconversions during NoCo – KM probability and predictors (unadjusted Poisson regression model)



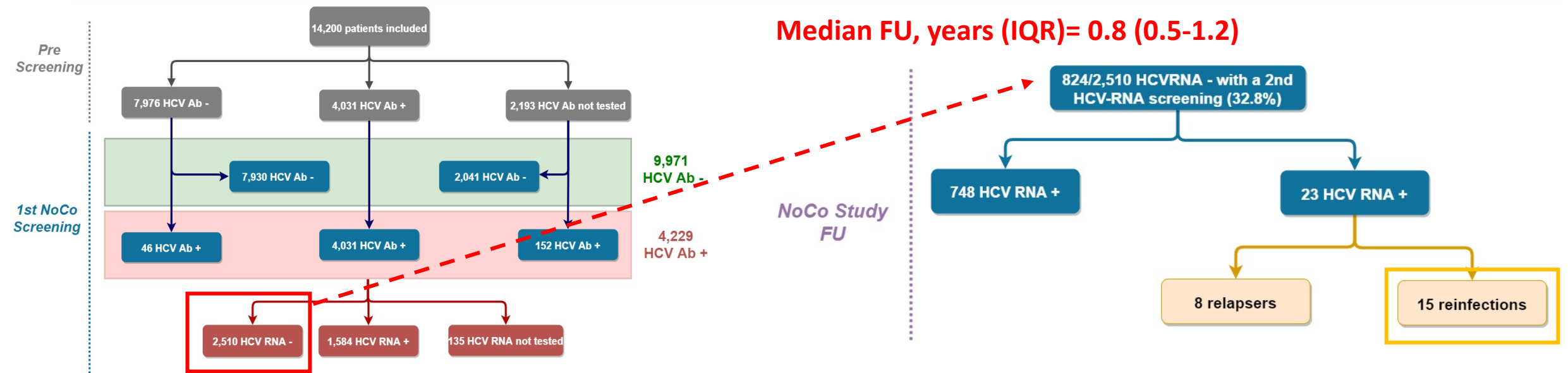
	IRR	95%CI	p	
Mode of HIV Transmission				
Heterosexual	1.00			
IDU	.	.	.	
MSM	1.36	0.44	4.50	0.492
Other/Unknown	0.49	0.06	3.99	0.505
Gender, M (vs F)	1.27	0.37	4.25	0.700
Years from HIV diagnosis, per 10 years increase	0.39	0.16	0.95	0.040
Non-Italian	1.98	0.84	4.63	0.114
Age, per 10 years older	0.87	0.61	1.23	0.442



Active HCV infection



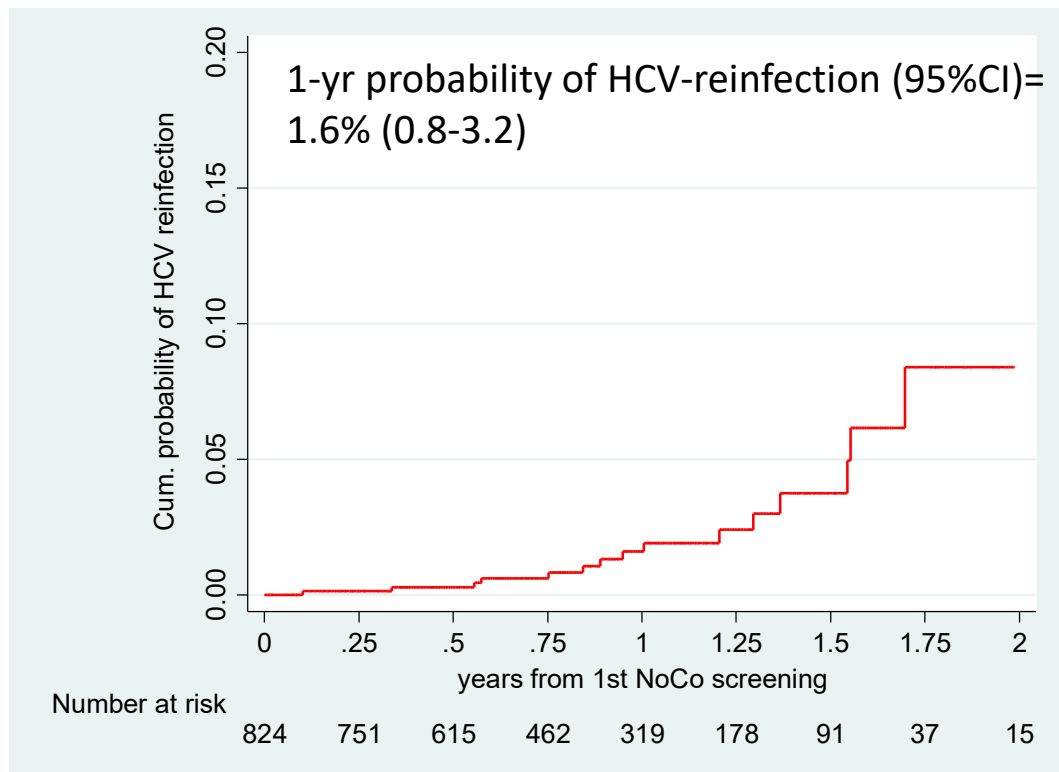
Incidence of HCV Reinfections during NoCo Study



	n subjects	PYFU	HCV reinfections	IR x 100 PYFU	95%CI
Heterosexual	99	96	2 (2.0%)	2.08	0.52-8.32
IDU	573	493	8 (1.4%)	1.62	0.81-3.24
MSM	108	95	5 (4.6%)	5.26	2.19-12.64
Other/Unknown	44	41	0 (0.0%)	.	.
Totals	824	726	15 (1.8%)	2.06	1.24-3.42



Re-infections: KM probability and predictors (unadjusted Poisson regression model)



	IRR	95%CI		p
Mode of HIV Transmission				
Heterosexual	1.00			
IDU	0.97	0.28	3.36	0.966
MSM	2.02	0.51	8.09	0.319
Other/Unknown
Gender, M (vs F)	2.08	0.62	6.97	0.236
Years from HIV diagnosis, per 10 years increase	0.60	0.40	0.90	0.014
Non-Italian	3.08	0.92	10.33	0.068
Age, per 10 years older	0.58	0.37	0.90	0.015



DAA uptake and response



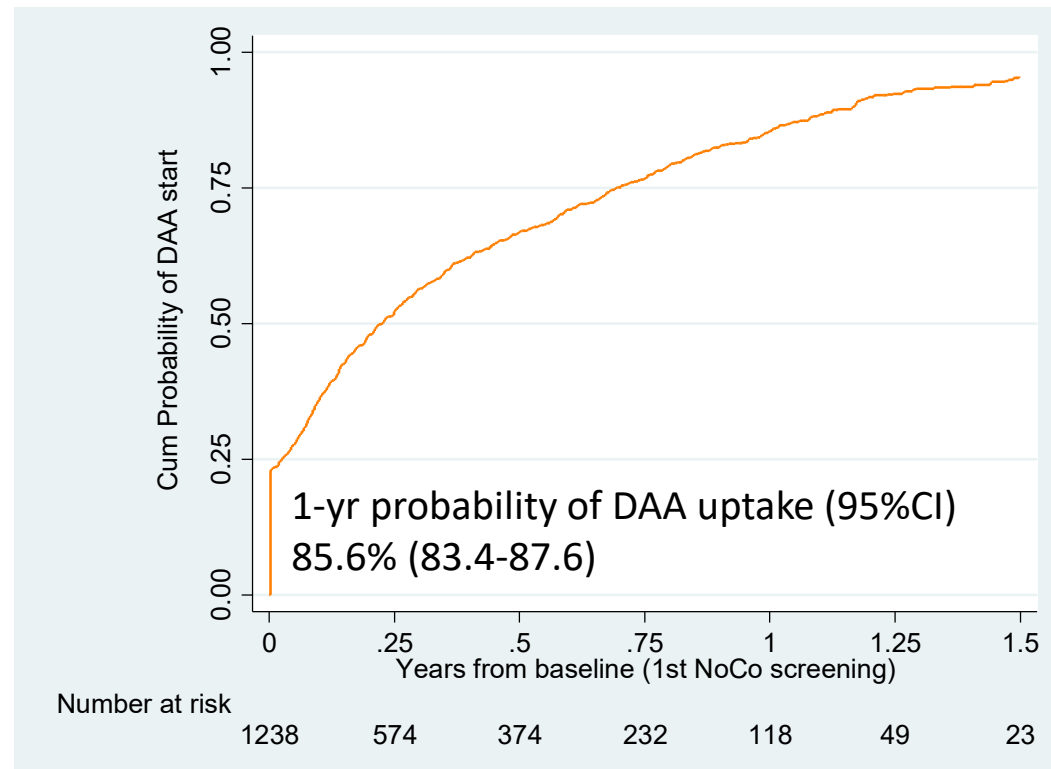
1,238/1,584 (78.1%) HCV viremic subjects at baseline had a follow-up thereafter

1,085 subjects started a DAA

- 68.5% of 1584 HCV-RNA pos at baseline
- 87.6% of 1,238 on FU

678/1,085 had available HCV-RNA data ≥ 12 weeks after EOT

SVR12 96.6%



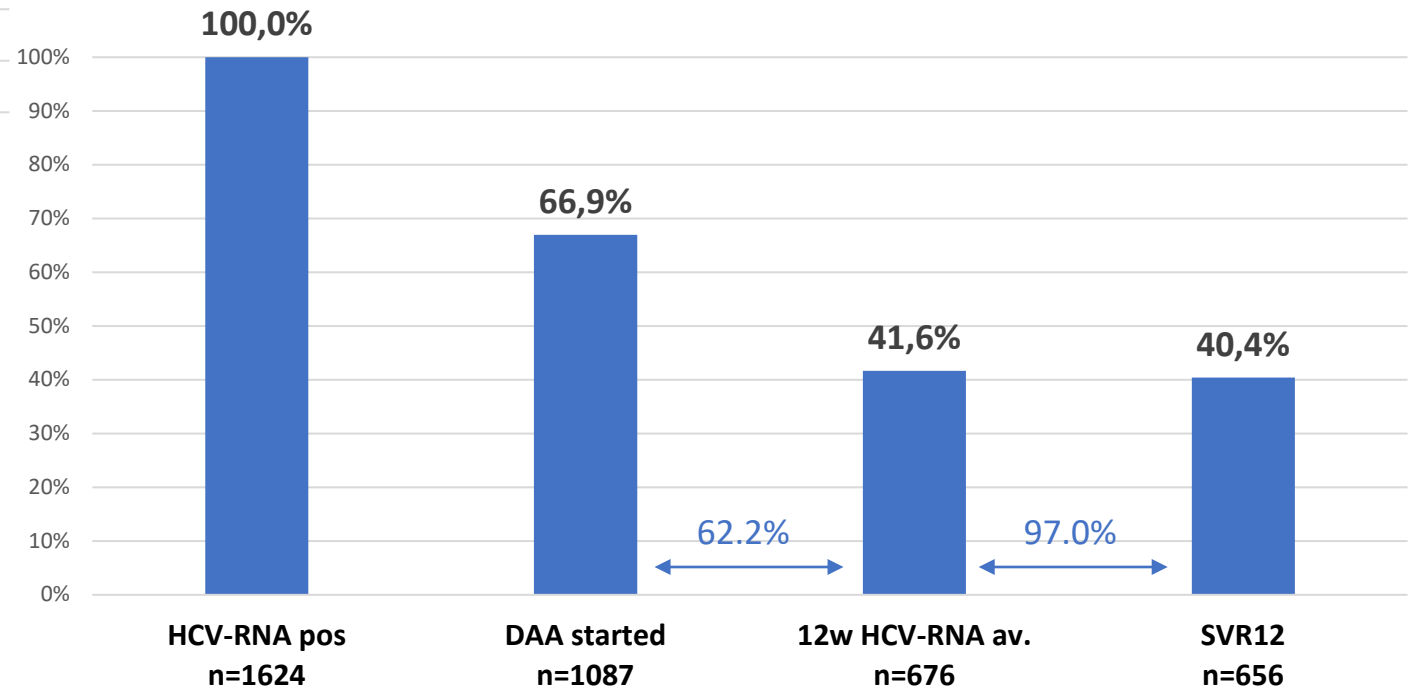
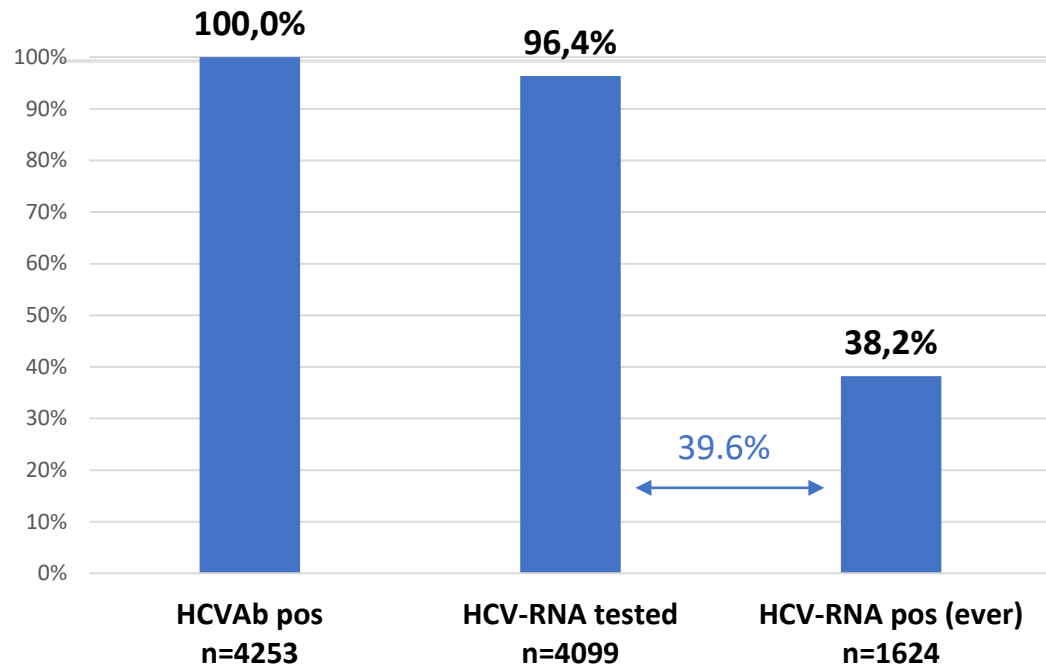
HCV Cascade

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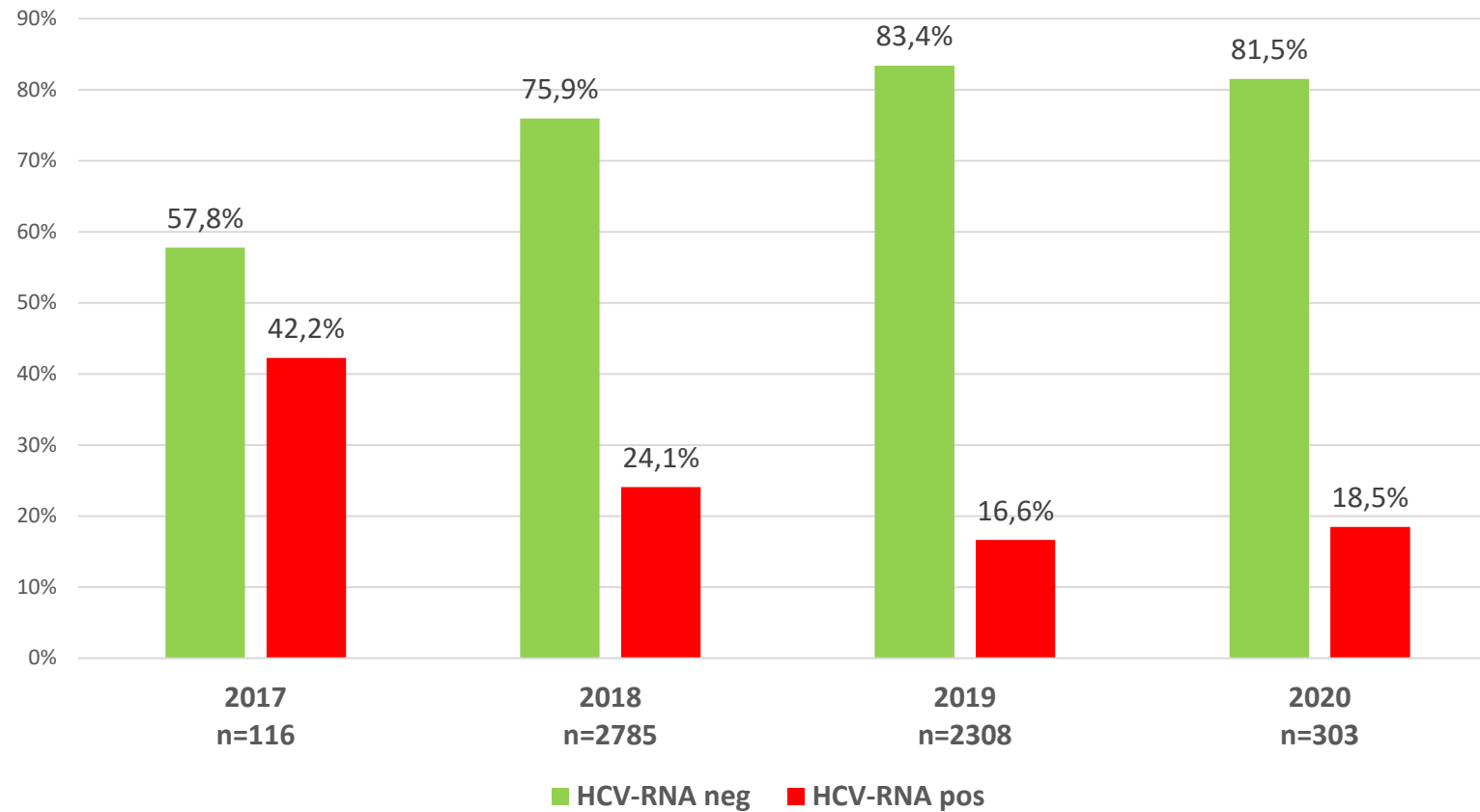
Active HCV infection according to calendar year of FU

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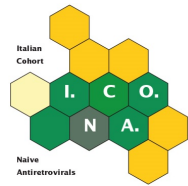
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Conclusions

- The NoCo study has emphasized that a low incidence of new HCV infections (0.8/100PY) and of re-infections (2/100 PY) occurs among HIV-HCV coinfecting individuals
- At higher risk of both re-infections and new infections are individuals with a shorter time of HIV infection
- DAA uptake occurred in almost 70% of HCV viremic individuals
- Eradication has been documented in 97% of DAA treated with known follow-up data
- In 2020 18% of our HCV-HIV coinfecting individuals are still viremic





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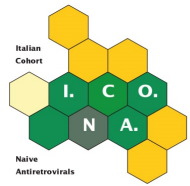
Icona Foundation

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NoCo Study

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NoCo Study Group

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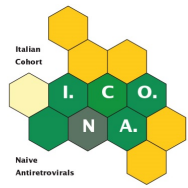
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