CURRENT PREVALENCE OF AND RISK FACTORS FOR LIVER CIRRHOSIS IN OPIOID AGONIST THERAPY PATIENTS OF THE SAMMSU COHORT AFTER 5 YEARS OF UNRESTRICTED DAA ACCESS

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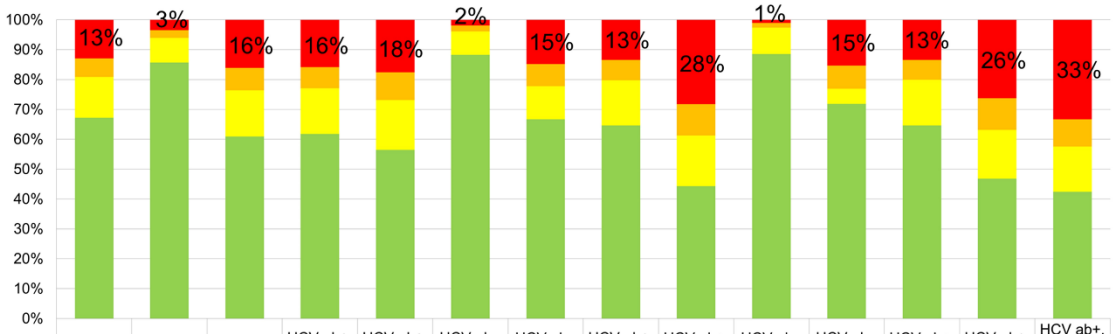
Background: Direct-acting antivirals (DAAs), with chronic hepatitis C cure rates of nearly 100%, are reimbursed without liver fibrosis restriction in Switzerland since 2017. With 84% HCV-treatment-uptake, HCV-RNA-prevalence among HCV-antibody-positives has decreased to 12% in the Swiss Association for the Medical Management in Substance Users (SAMMSU) cohort. Thus, prevalence of and risk factors for liver cirrhosis should be reassessed.

Methods: Between 2014 and 02/03/2023, 1346 >18-year-old opioid agonist therapy (OAT) patients were recruited: 62% HCV-antibody-positive, 10% HIV-antibody-positive (thereof 96% HCV-co-infected). 15% had alcohol overconsumption (≥49g/d) and 20% obesity (BMI>30kg/m^2) in at least one follow-up. Liver cirrhosis (F4) was defined as Fibroscan® >12.5kPa at the last available examination.

Results: In 68% (914/1346), Fibroscan® results were available: in 82% (683/828) of HCV-antibody-positive and in 45% (231/518) of HCV-antibody-negative patients. Prevalence of HIV-infection and alcohol overconsumption (≥49g/d) was significantly higher among HCV-antibody-positive patients (15% versus 1%, and 18% versus 11%, respectively), with no difference regarding obesity (BMI>30kg/m^2) (21% versus 19%).
Overall, 12.9% (118/914) had liver cirrhosis (F4, >12.5kPa) in their last Fibroscan® (HCV-antibody-positive: 16.1% (110/683), HCV-antibody-negative: 3.5% (8/231), OR: 5.4, p<0.001). Cirrhosis prevalence was similar for HIV/HCV-co- and HCV-mono-infected patients (17.6% (19/108) versus 15.8% (91/575), p=0.647). Obesity (BMI>30kg/m^2) and alcohol (≥49g/d) were risk factors for liver cirrhosis (23.9% versus 10.2%, OR 2.8, p<0.001, and 25.8% versus 10.4%, OR 3.0, p<0.001). Among obese HCV-antibody-positive patients consuming alcohol ≥49g/d, liver cirrhosis prevalence was highest (33.3%) (Figure 1).

Fibroscan® results and proportion with liver cirrhosis (red) in different risk groups of the SAMMSU cohort



	All (914)	HCV ab- (231)	HCV ab+ (683)	HCV ab+, HIV ab- (575)	HCV ab+, HIV ab+ (108)	HCV ab-, Alc<49 (204)	HCV ab-, Alc≥49 (27)	HCV ab+, Alc<49 (559)	HCV ab+, Alc≥49 (124)	HCV ab-, BMI≤30 (192)	HCV ab-, BMI>30 (39)	HCV ab+, BMI≤30 (542)	HCV ab+, BMI>30 (141)	HCV ab+, Alc≥49, BMI>30 (33)
■ >12.5 (F4)	118	8	110	91	19	4	4	75	35	2	6	73	37	11
■ >9.5 u. ≤12.5 (F3)	57	6	51	41	10	4	2	38	13	3	3	36	15	3
■ >7.0 u ≤9.5 (F2)	125	19	106	88	18	16	3	85	21	17	2	83	23	5
■ ≤7.0 (F0-1)	614	198	416	355	61	180	18	361	55	170	28	350	66	14

HCV = hepatitis C virus, HIV = human immunodeficiency virus, ab- = antibody-negative, ab+ = antibody-positive, Alc = alcohol consumption (in g/d), BMI = body mass index (in kg/m^2), liver cirrhosis (F4) = Fibroscan® >12.5 kPa

Conclusion: In the era of universal antiretroviral therapy and almost 100% HCV cure rates irrespective of HIV-status, HIV-co-infection may no longer be an independent risk factor for liver cirrhosis among HCV-antibody-positive OAT-patients. Since alcohol overconsumption and obesity are associated with increased liver cirrhosis prevalence, both in HCV-antibody-positive and HCV-antibody-negative patients, and highly prevalent among OAT-patients, a universal liver fibrosis screening should be considered in the aging population of OAT-patients.

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