



# People who inject drugs gaps in the care system of a high-risk group

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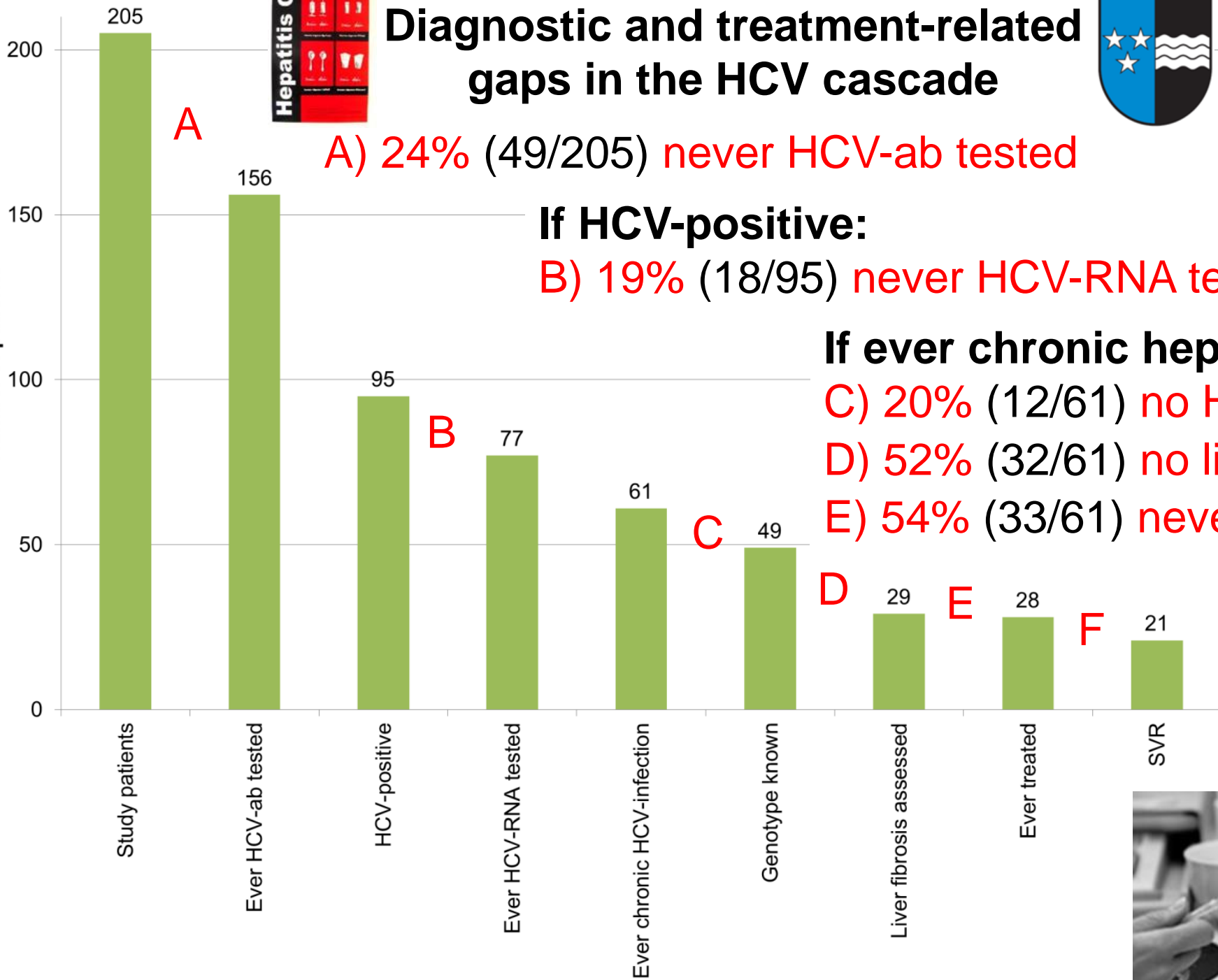




# Diagnostic and treatment-related gaps in the HCV cascade



Number of patients



A

A) 24% (49/205) never HCV-ab tested

If HCV-positive:

B) 19% (18/95) never HCV-RNA tested

If ever chronic hepatitis C:

C) 20% (12/61) no HCV-genotype

D) 52% (32/61) no liver fibrosis assessment

E) 54% (33/61) never treated

If treated (IFN-based):

F) 25% (7/28) no SVR





## Further gaps beyond the HCV cascade



G) 26% (53/205) never HIV-ab tested

H) Yearly HIV-ab screening in HIV-negatives:  
In only 20% (37/187), last test  $\leq 1$  year old

I) Yearly HCV-ab screening in HCV-negatives:  
In only 23% (22/94), last test  $\leq 1$  year old

J) Yearly HCV-RNA screening in HCV-ab-positive-HCV-RNA-negatives:  
In only 40% (16/40), last test  $\leq 1$  year old

K) In  $>50\%$  HAV/HBV-serostatus unknown

L) If HAV/HBV-serostatus known:

46% (36/79) not immune against HAV

33% (33/100) not immune against HBV





## Potential reasons for these gaps



### Diagnostic gaps:

- Difficult venous access after long-term intravenous drug use
- Fear of liver biopsy
- OST programmes often exclusively led by psychiatrists  
→ somatic diseases, especially chronic infections, frequently unaddressed
- Lack of a yearly reminder regarding screening

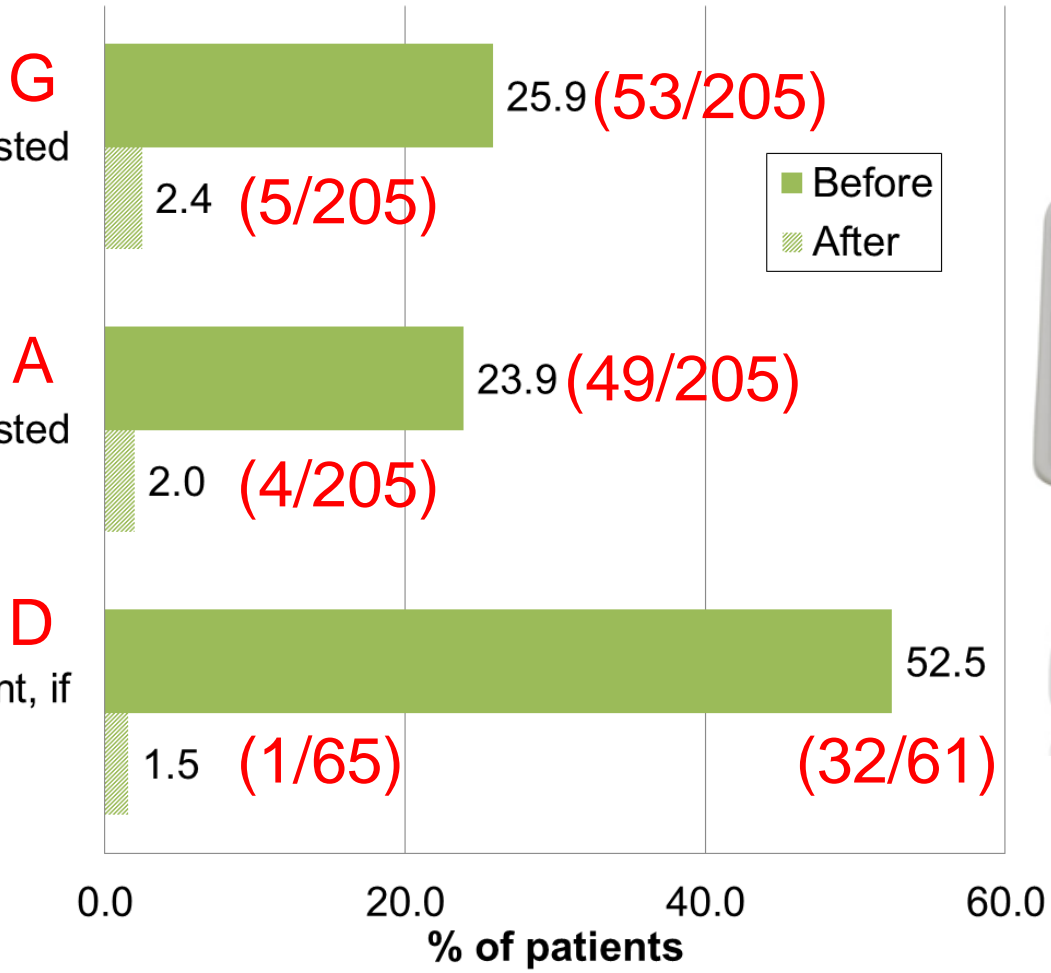
### Treatment-related gaps:

- Toxicity and low efficacy (40-80% SVR) of IFN-based treatment
- Referral to outpatient clinics of tertiary care hospitals often problematic (difficulty keeping appointments)
- Reimbursement restrictions
- Prescription only by gastroenterologists/  
infectious disease specialists





# Effect of free HIV/HCV-rapid testing and mobile Fibroscan®



**No new HIV diagnoses**  
(last first diagnosis: 2008)

**14 new HCV diagnoses**  
**10 false-negative results**  
(all HCV-RNA negative)

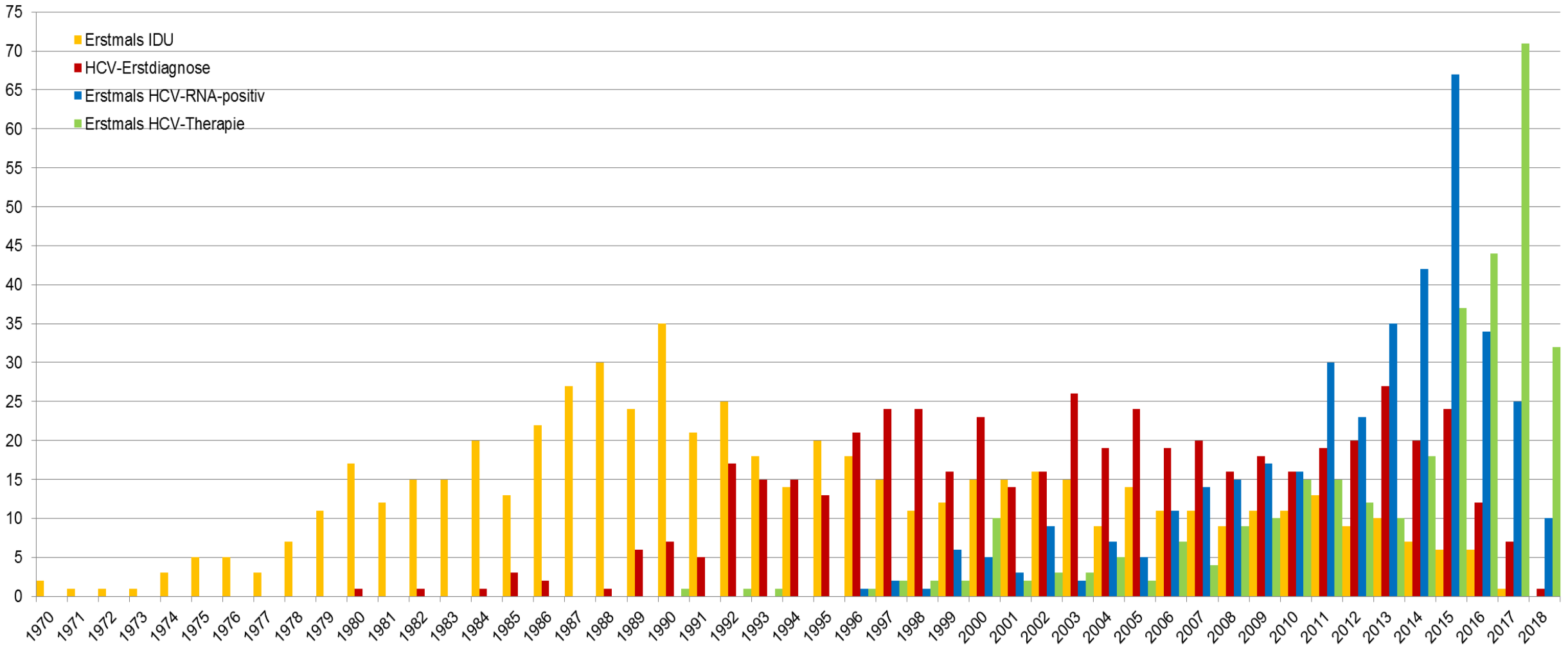


No liver fibrosis assessment, if chronic hepatitis C



**Higher acceptance, if in the same session (94% vs. 69%)**

# „Hepatitis C waves“ in the SAMMSU\* Cohort



\*Swiss Association for the Medical Management in Substance Users



# Mind the gAp

- Awareness
- Availability
- Access
- Affordability
- Allocation
- Atractiveness





# Mind the gAp

- Awareness ✓
- Availability ✓
- Access ✓
- Affordability ✓
- Allocation ✓
- Attractiveness ✓



# Mind the gAp

- Awareness ✓
- Availability ✓
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- Allocation ✓
- Attractiveness ✓





# Mind the gAp

- **Awareness**
- Availability
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## Diagnosis

- not considered
- wrong hypotheses



# Mind the gAp

- **Awareness**
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## **Misconceptions about treatment**

- „not necessary“
- abstinence requested
- needs liver biopsy
- needs many blood tests
- long treatment duration
- with interferons
- with limitations (patients)
- high risk for reinfection



# Mind the gAp

- Awareness
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unsolved for

- people who use drugs
- prison inmates
- people with migration background
- uninsured people
- sans-papiers



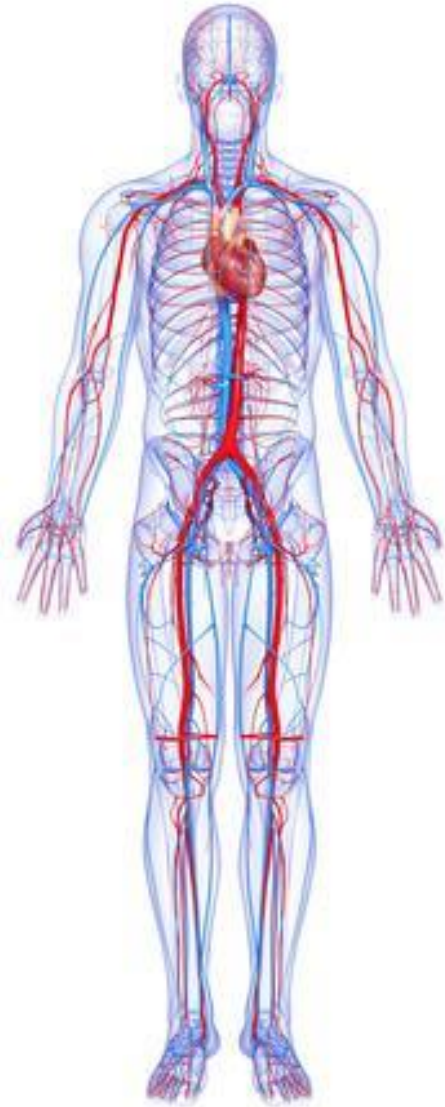
# Mind the gAp

- Awareness
- Availability
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- Affordability
- Allocation
- **Attractiveness**

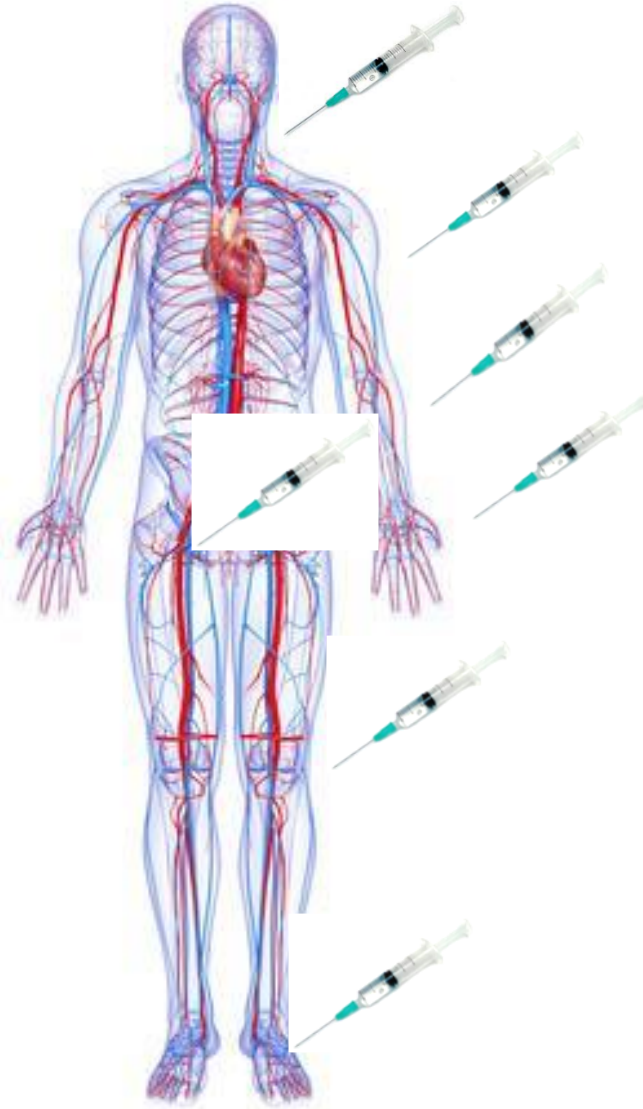
limitations for prescribers

treatment obstacles

# Blood sampling ...

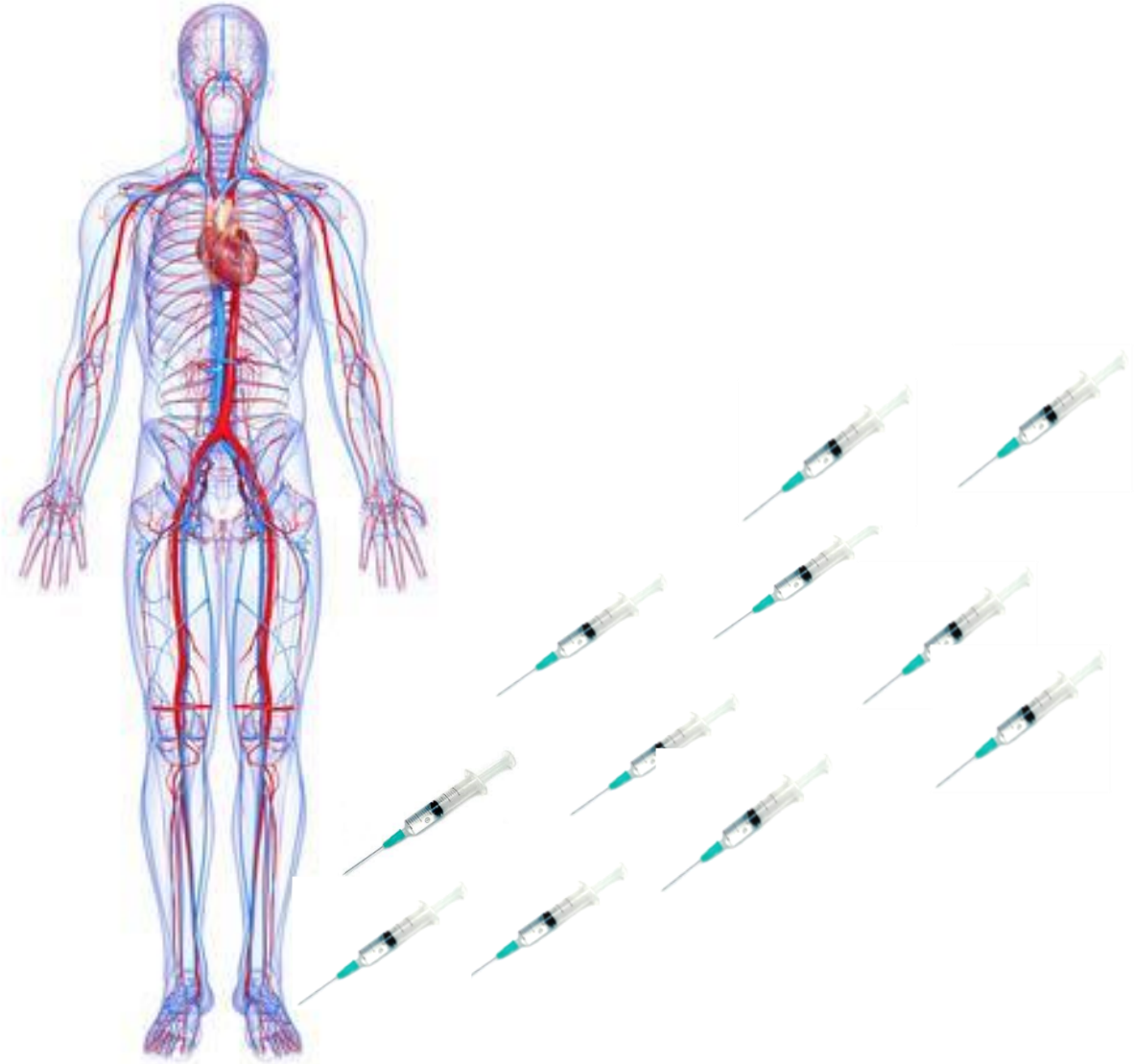


# Blood sampling ...





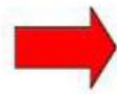
# Blood sampling ...



**... needs a specialist**



# Alternatives to whole blood sampling



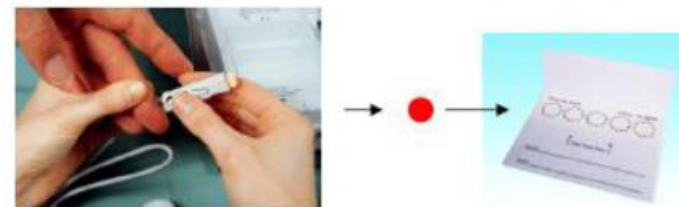
saliva



Saliva tests HCV Ab



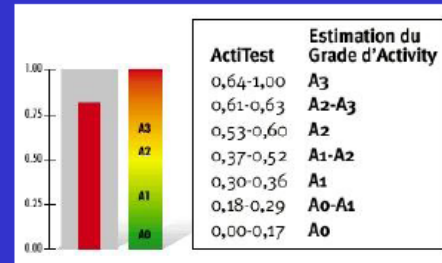
capillary blood



# Improve assessment Access to non invasive fibrosis assessment



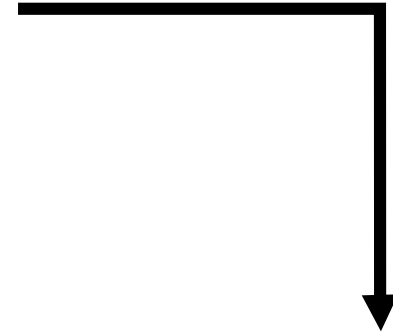
- Fibrotest



- Fibroscan



What do you need to treat HCV



What do you really need to cure HCV

What does the patient want from HCV therapy  
The Cure





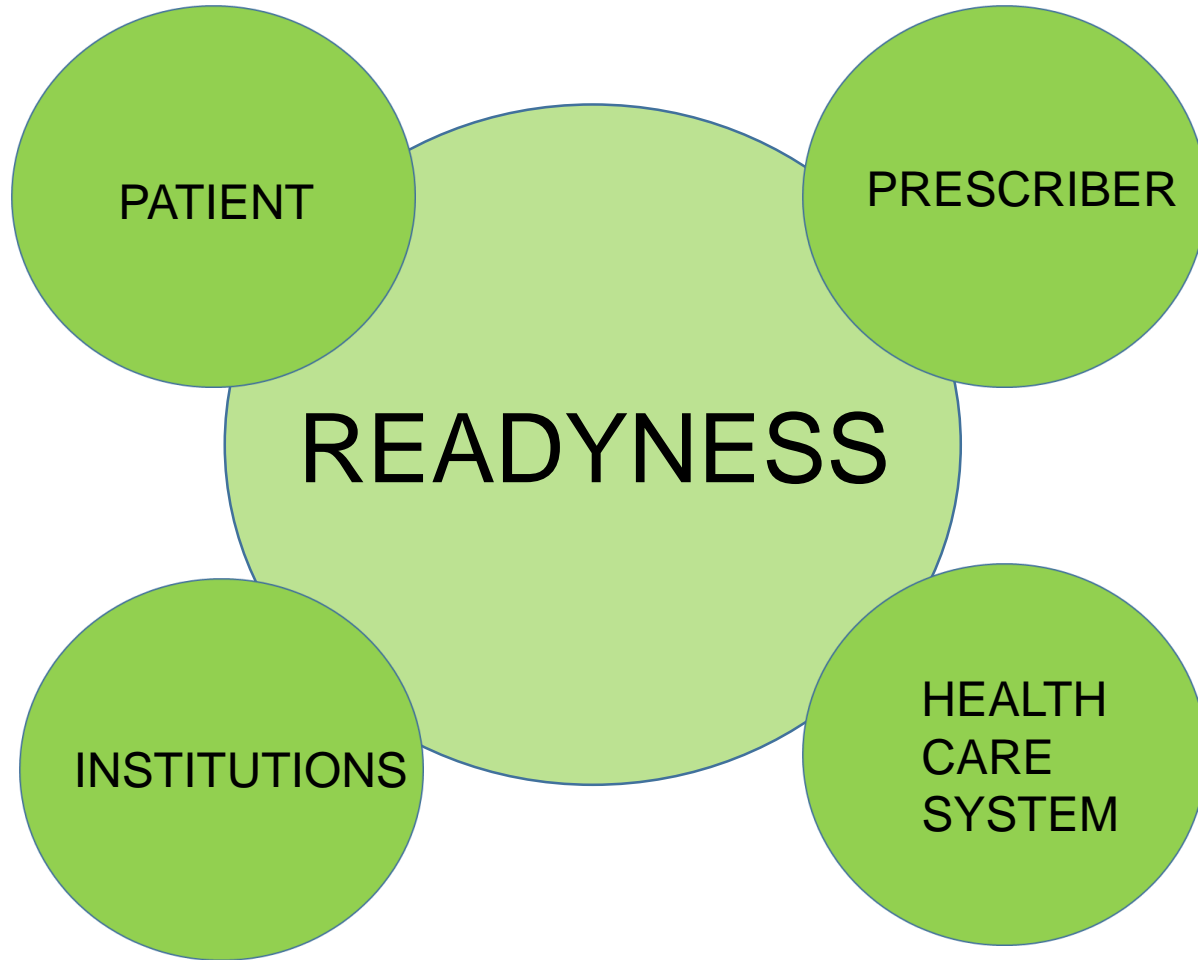
# Mind the gAp

- Awareness (✓)
- Availability (✓)
- Access (✓)
- Affordability (✓)
- Allocation (✓)
- Attractiveness (✓)



We need more ...









# Minimally invasive point-of-care tests and other measures to close the gaps



Gap	Measure(s) to close it
A) HCV-ab	HCV-ab rapid test (OraQuick®, Orasure®) (20min)
B) HCV-RNA	Xpert® HCV VL Fingerstick (60min)
C) HCV-genotype	Dispensible with pangenotypic DAA
D) Liver fibrosis stage	Mobile Fibroscan® (5-10min)
E) Treatment-uptake	<ul style="list-style-type: none"> <li>• IFN-free treatment: simpler, shorter, better tolerable</li> <li>• Since 2017, no reimbursement restrictions regarding liver fibrosis stage</li> <li>• <b>Reimbursement in prisons and during the stay in a psychiatric/addiction clinic?</b></li> <li>• «Test-and-treat» on site (OST-programme)</li> <li>• <b>Prescription by general practitioners?</b></li> </ul>





# Minimally invasive point-of-care tests and other measures to close the gaps



Gap	Measure(s) to close it
F) Treatment-success	>95% SVR with pangenotypic DAA
G) HIV-ab	HIV-ab rapid test (Determine® HIV-1/2, Alere®) (15min)
H-J) Yearly screening	<a href="#">Linkage to the yearly renewal of OST prescription</a>
K) HAV/HBV-serology	<a href="#">Linkage to the yearly renewal of OST prescription</a> OnSite® HAV IgG/IgM Rapid Test (CTK Biotech) (15min) HBV-panel (anti-HBs, HBs-Ag, anti-HBc) rapid test (developed by MagIA Diagnostics) (15min)
L) HAV/HBV-vaccination	<ul style="list-style-type: none"> <li>«Test-and-vaccinate» on site (OST programme)</li> <li>Linkage to HCV-therapy: 1<sup>st</sup>(start), 2<sup>nd</sup>(week 4), 3<sup>rd</sup>(SVR)</li> </ul>

Point-of-care tests using capillary blood and a “test-and-treat/vaccinate” approach on site can remove crucial barriers to diagnosis and treatment.

