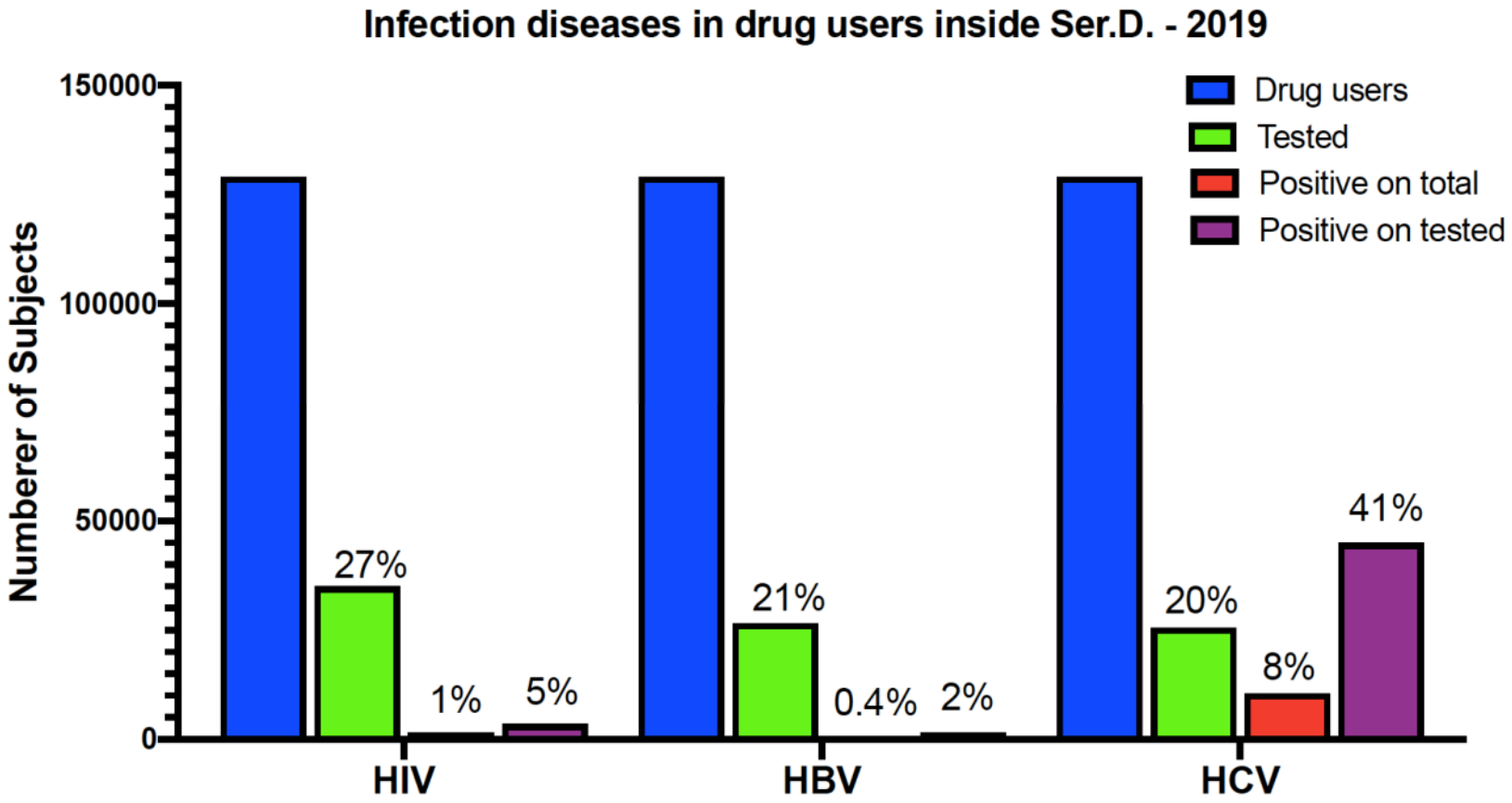
Le azioni di riduzione del danno: un piano di implementazione per il sistema nel trattamento delle epatiti viriali e di HIV nei consumatori di sostanze

Felice Alfonso Nava, MD, PhD

10 Dicembre 2020

Epidemiology in key populations



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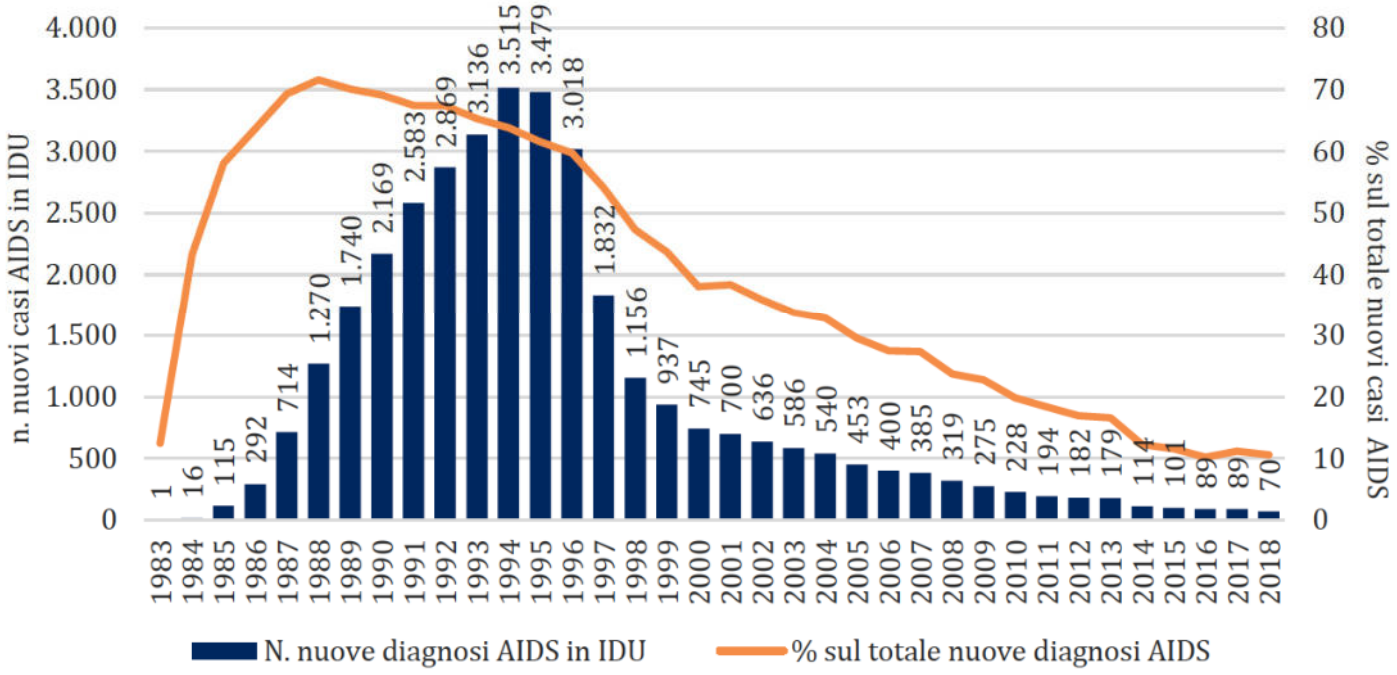
HIV in drug users (1)

Figura 7.4.4 - Distribuzione assoluta delle nuove diagnosi AIDS in IDU e percentuale sul totale delle nuove diagnosi AIDS notificate nell'anno

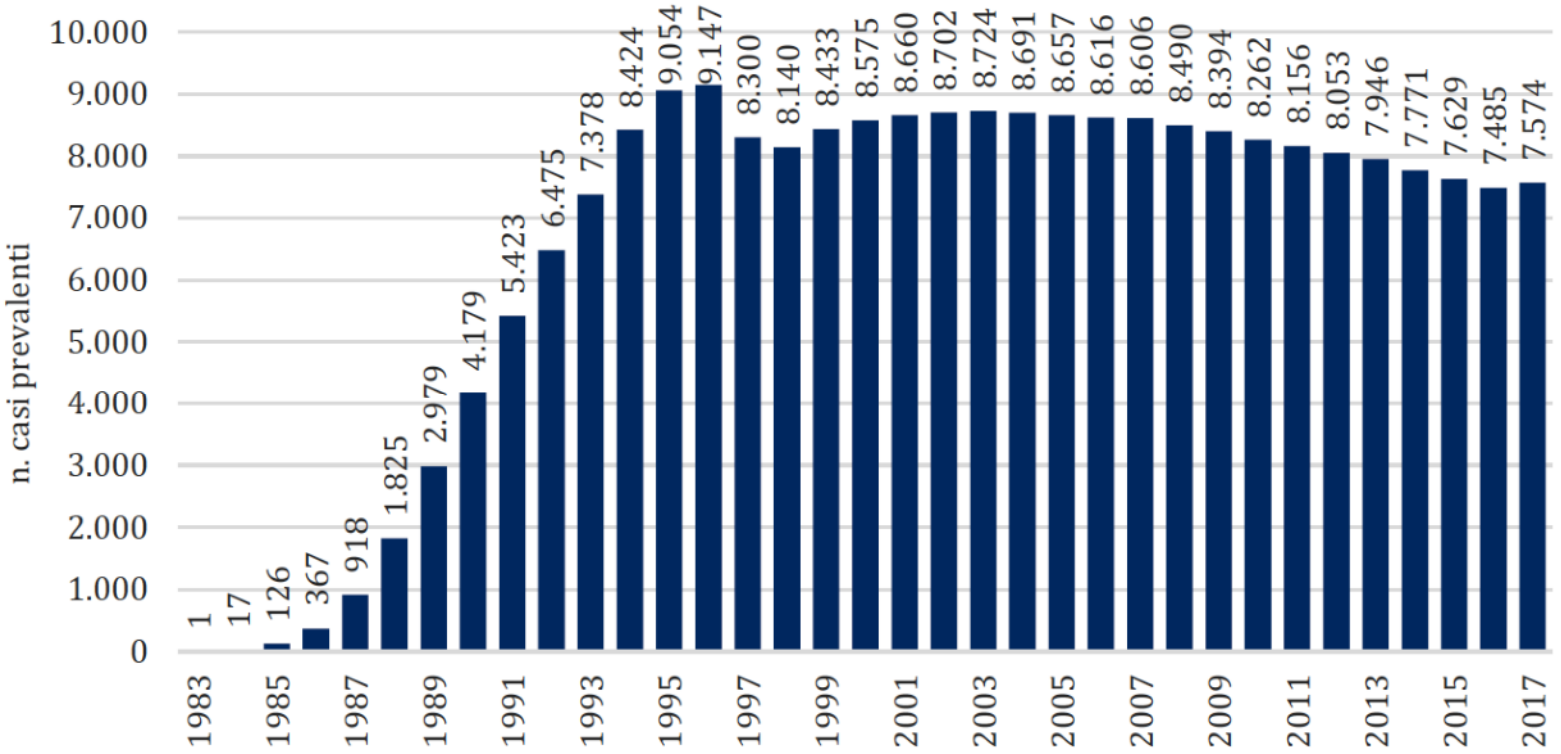


Fonte: Istituto Superiore di Sanità - Anni 1983-2018

http://www.politicheantidroga.gov.it/it/dpa-in-sintesi/relazioni-annuali-al-parlamento/relazione-annuale-al-parlamento-sul-fenomeno-delle-tossicodipendenze-in-italia-anno-2020-dati-2019/

HIV in drug users (2)

Figura 7.4.9 - Numero assoluto di casi prevalenti di AIDS in soggetti IDU per anno



Fonte: Istituto Superiore di Sanità - Anni 1983-2017

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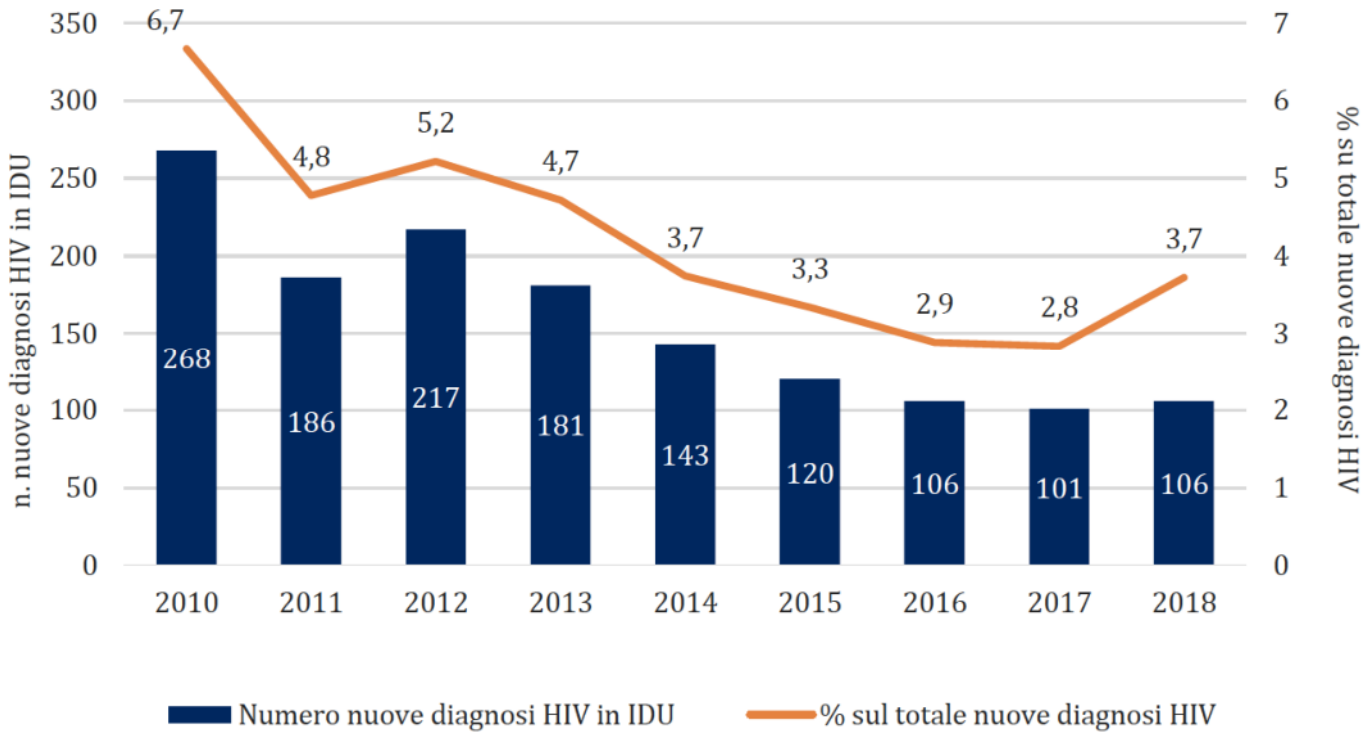
HIV in drug users (3)

Figura 7.4.1 - Distribuzione del numero di nuove diagnosi HIV in IDU e trend percentuale sul totale delle nuove diagnosi HIV notificate nell'anno

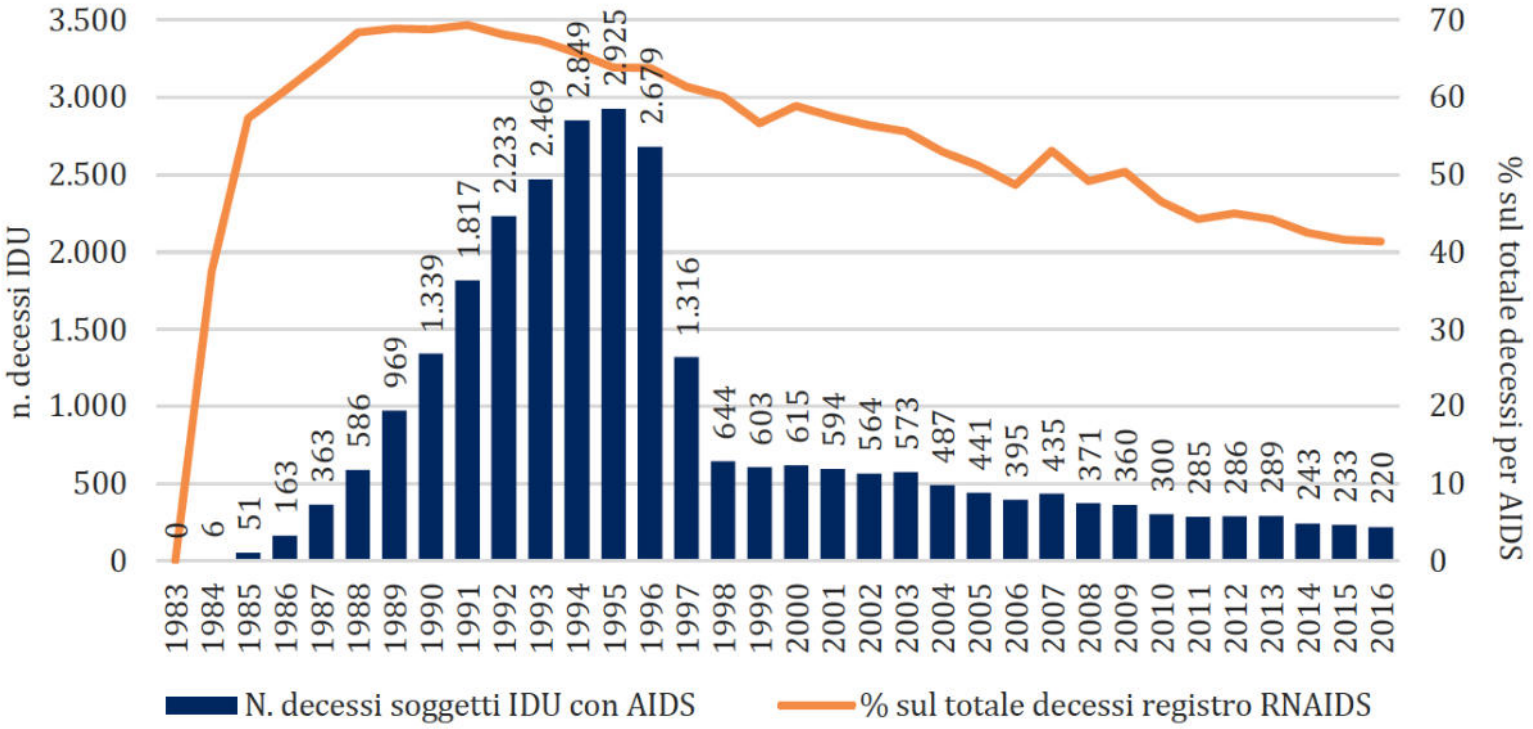


Fonte: Istituto Superiore di Sanità - Anni 2010-2018

http://www.politicheantidroga.gov.it/it/dpa-in-sintesi/relazioni-annuali-al-parlamento/relazione-annuale-al-parlamento-sul-fenomeno-delle-tossicodipendenze-in-italia-anno-2020-dati-2019/

HIV in drug users (4)

Figura 7.4.8 - Numero di decessi di IDU inclusi nel RNAIDS e percentuale sul totale dei decessi per AIDS avvenuti nell'anno



Fonte: Istituto Superiore di Sanità - Anni 1983-2016

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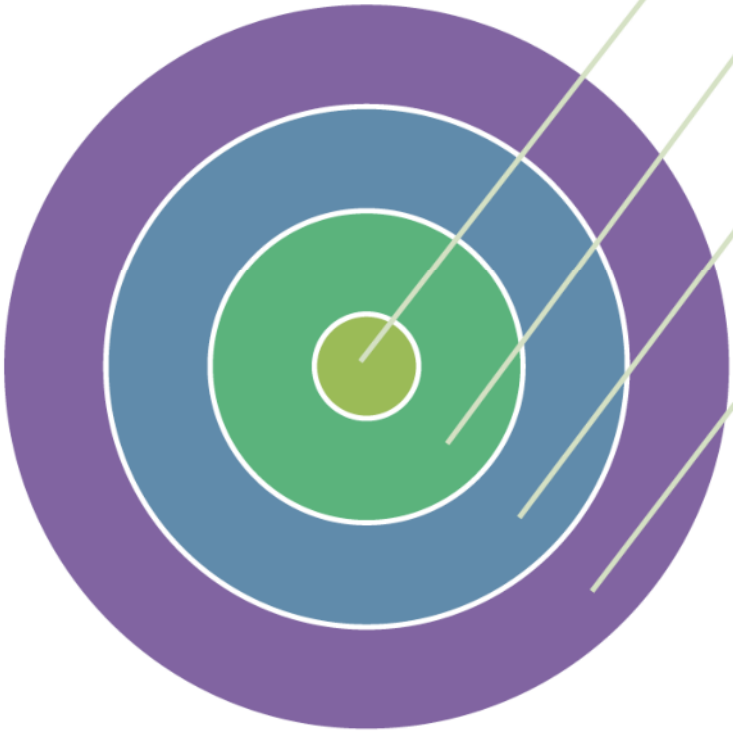
Structural Barriers



Resources

- Drug Cost
- Health costs

Criminalization of use

- Barriers for treatment

Treatment rules

- Procedures only for general population
- Treatment limitation for "special population"

Stigma

Wolfe D. et al. Int. J. Drug Policy, 2015; 26: 1072-80

Operational Barriers

Patient's correlated

- Anawareness
- Behavioural disorders
- Social and aconomic difficuties
- Weak relationship with doctors
- Stigma
- No motivation to change

Doctor's Correlated

- Anawareness
- Concern on adherence and reinfection
- Lack of a clinical network
- Lack of communication between spcialists

System's correlated

- Lack of resources
- Lack of specialist collaboration
- Distannce between clinical centers
- No blood collection centers
- No procedures or guidelines

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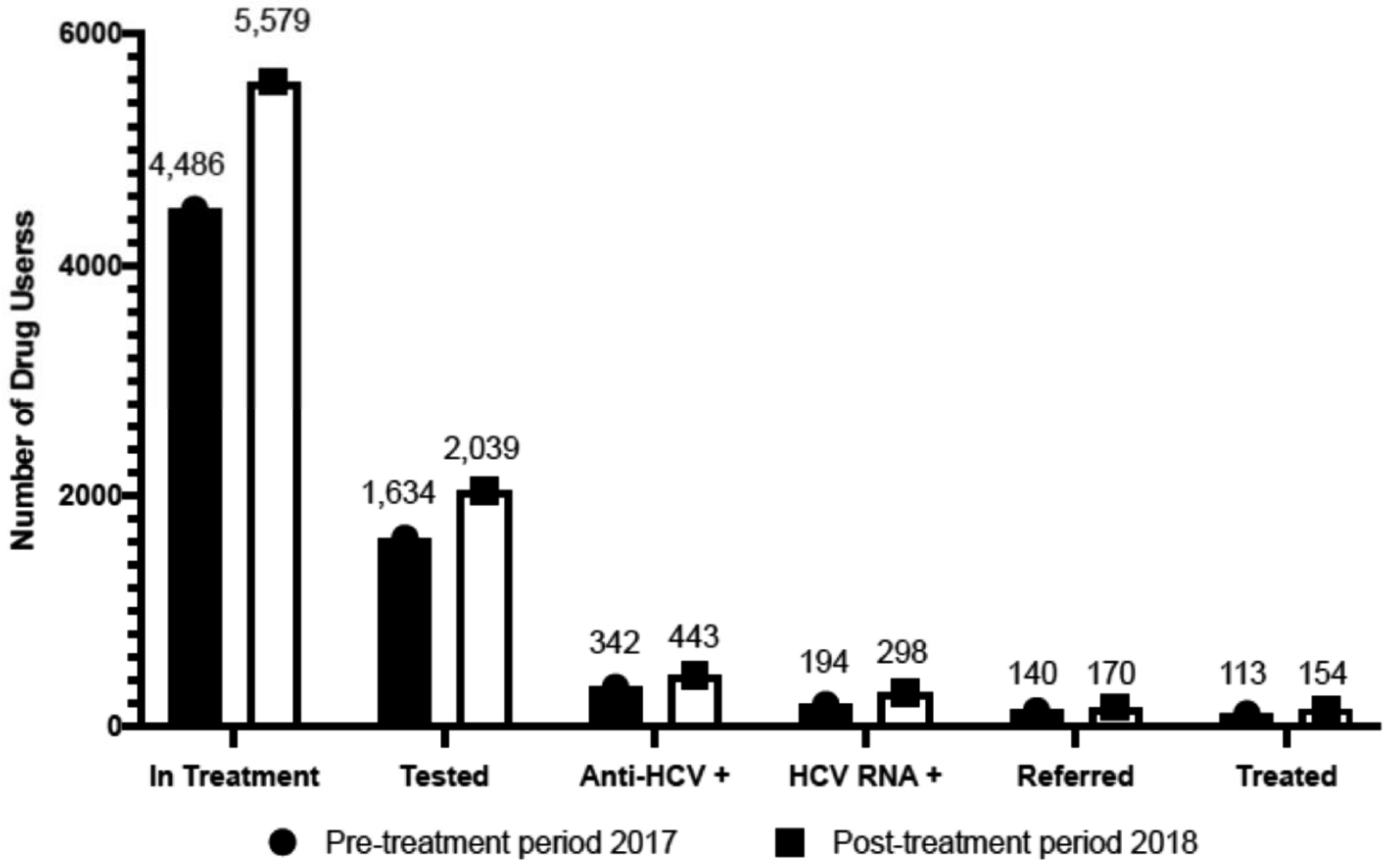
Italian barriers (1)

Fig. 1 - HCV cascade in the PWUDs in the pre-intervention (2017) and post-intervention (2018) periods (Paired t test $p < 0.14$)



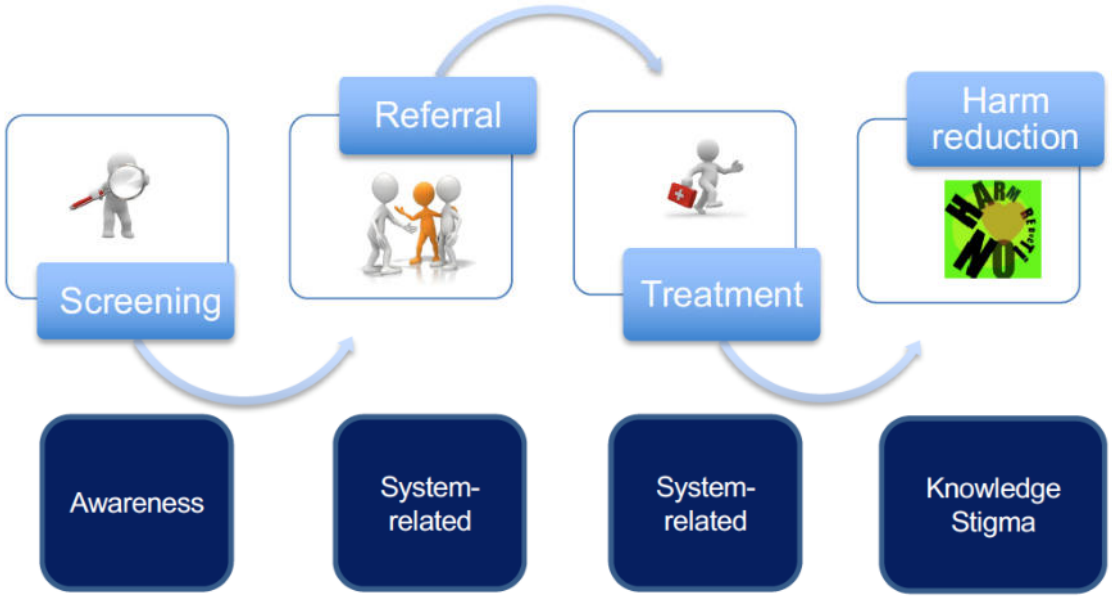
Nava et al., 2020, Mission – Italian Quarterly Journal of Addiction, 54: 24-28

Italian barriers (2)

Tab. 4 - Main barriers for HCV treatment inside the SerDs in the pre-intervention (2017) and pos-intervention period (2018)

	SerD ASST Melegnano-Martisana		*SerD Bergamo*		*SerD Novara*		*SerD Chieti*		*SerD Sud Est Firenze*	
	2017	*2018*	*2017*	*2018*	*2017*	*2018*	*2017*	*2018*	*2017*	*2018*
Screening										
Rapid test	No	No	No	No	No	No	No	No	No	No
Test – Re-test	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
Counseling	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No
Blood sample collection point	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Referral										
Referral per all HCV positive	No	Yes	No	Yes	No	No	No	No	No	Yes
Treatment										
Trattamento inside SerDs	Yes	Yes	No	No	No	No	No	No	No	No
Drug treatment monitoring	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
Harm reduction										
All HR actions	No	No	No	No	No	No	No	No	No	No
Some HR actions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

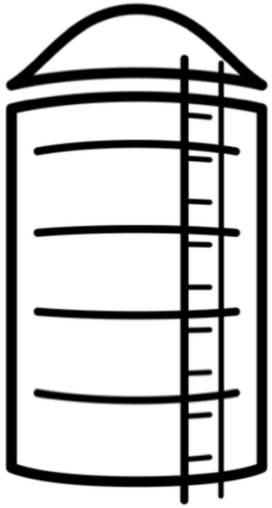
Treatment of PWID with HCV infection: Essential Step



Nava FA, et al. Italian Quarterly Journal of Addiction 2018:Mission 49:56–61

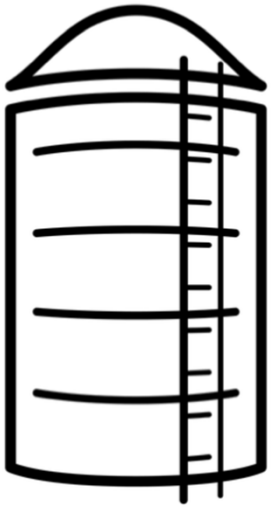
Cost for «health care silos»

Screening & Referral



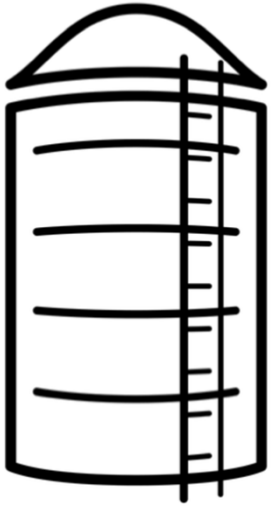
€ 376-571

Trattamento



€ 531-690

Monitoraggio & Follow up



€ 390-467

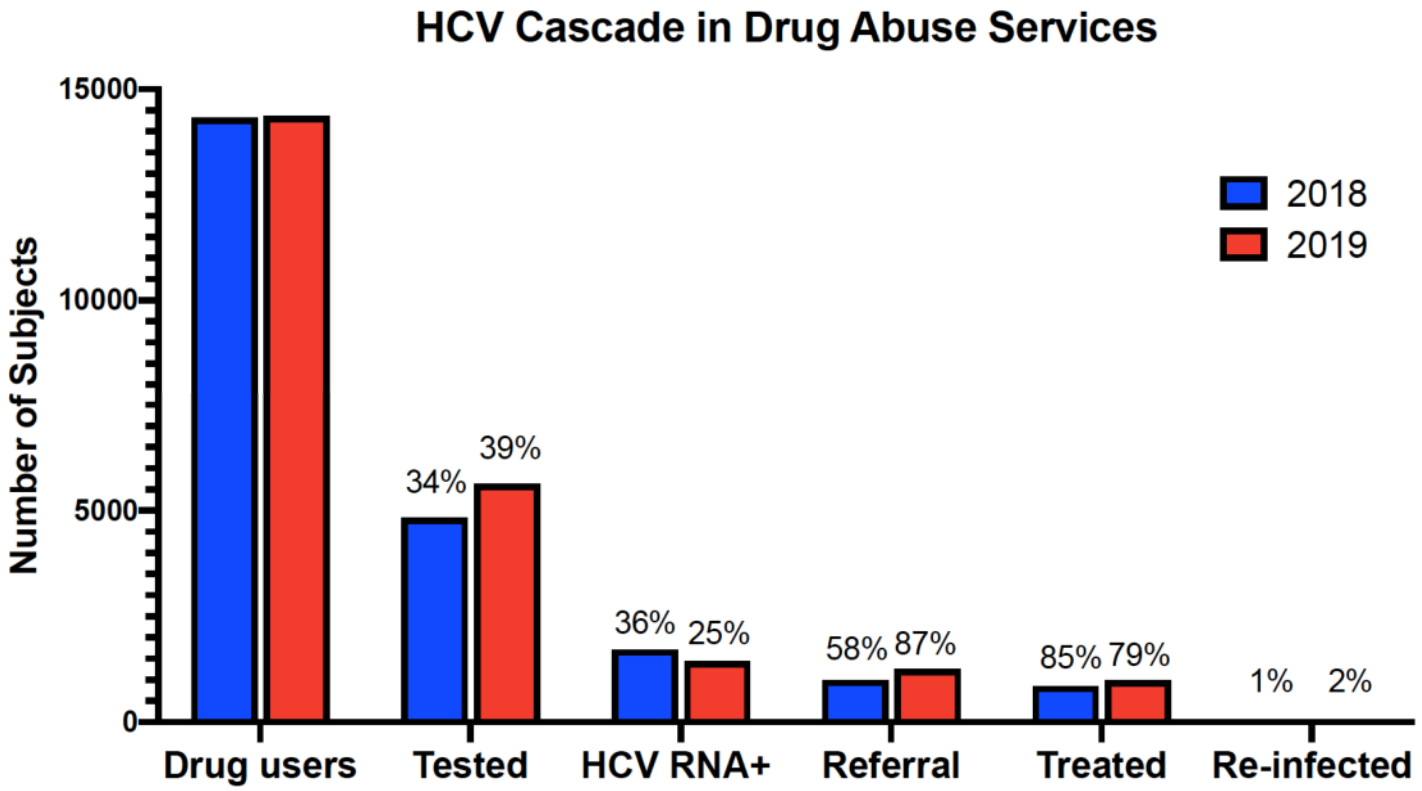
€ 1.297-1.728

Nava et al., 2018, ReAdfile, 19: 35-38

Epidemiology of Special Population in Veneto Region

Consorzio per la Ricerca Sanitaria CORIS

Regione del Veneto



Unpublished data

Epidemiology of Special Population in Veneto Region

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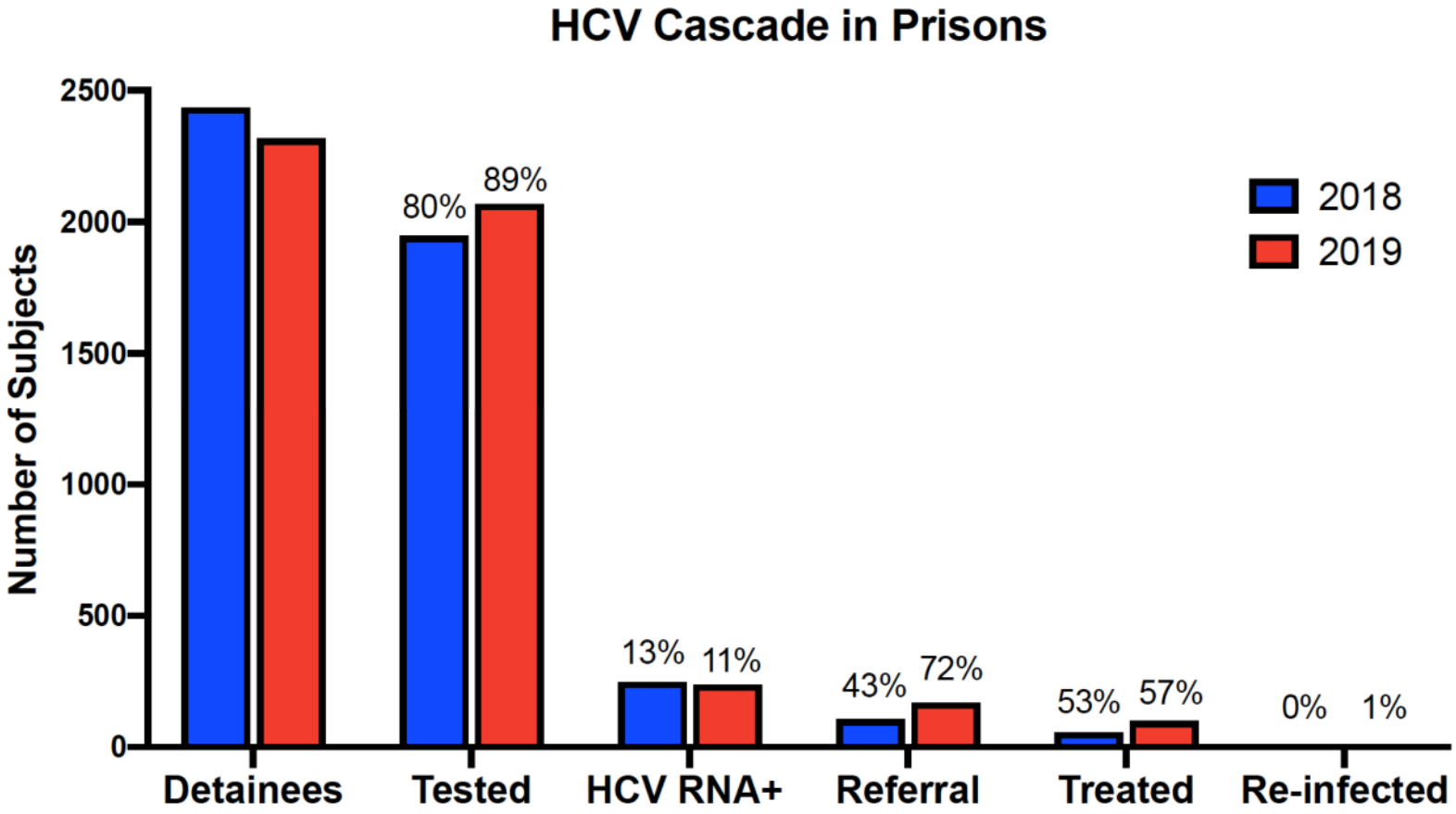
Regione del Veneto



Unpublished data

The Point of Care

The «**Point of Care**» is a *fast track* clinical pathways, a sort of diagnostic therapeutic pathways with the aim to make on site (where is the patient) screening, diagnosis, and treatment

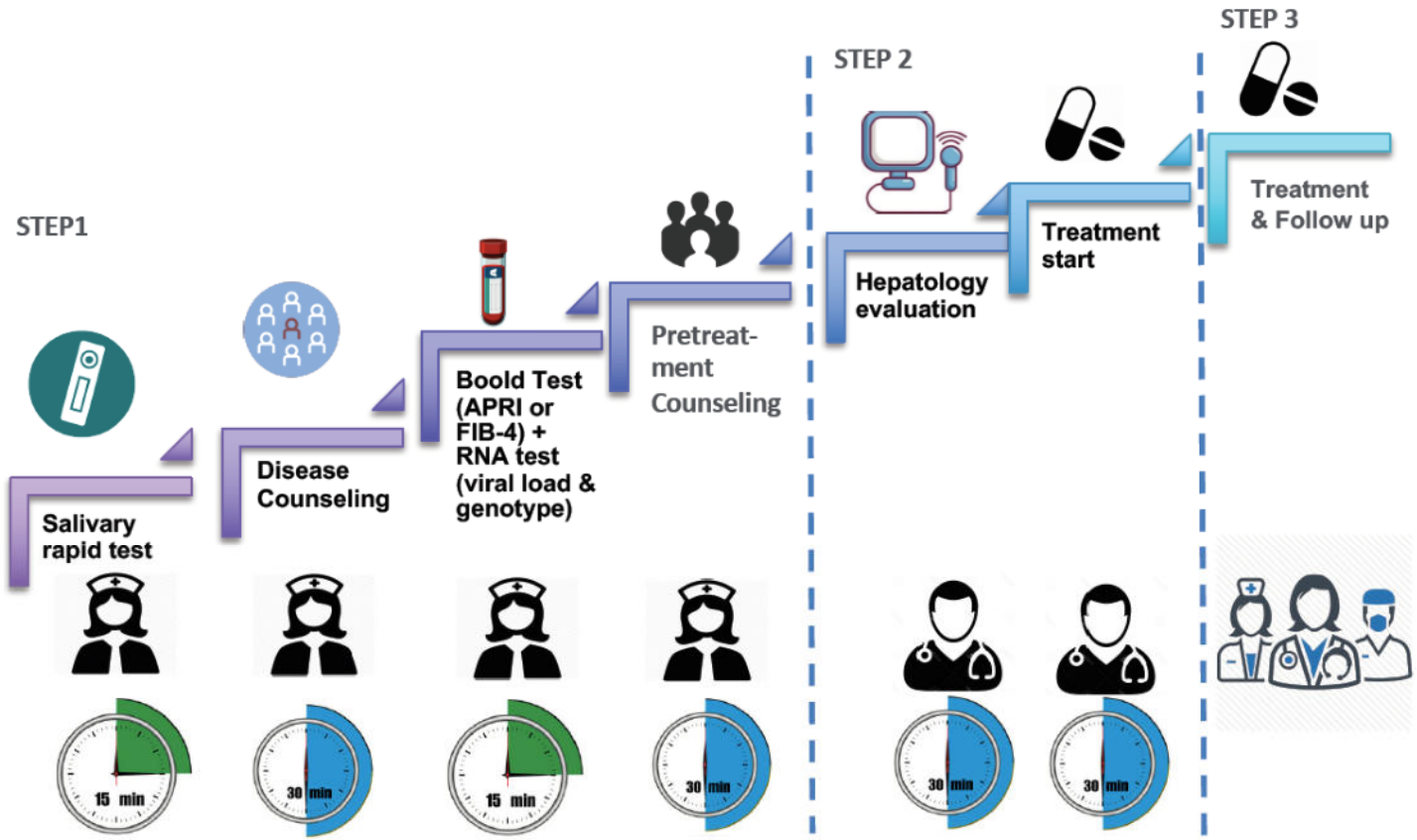
Vold et al., 2019, BMC Infect. Dis., 19:306

The Point of Care for PWIDs

The **Point of Care** inside Ser.D.s and Prisons consists of a pre-ordinated sequence of actions able to make diagnosis and to make easy the beginning of treatment (removing referral barrier)

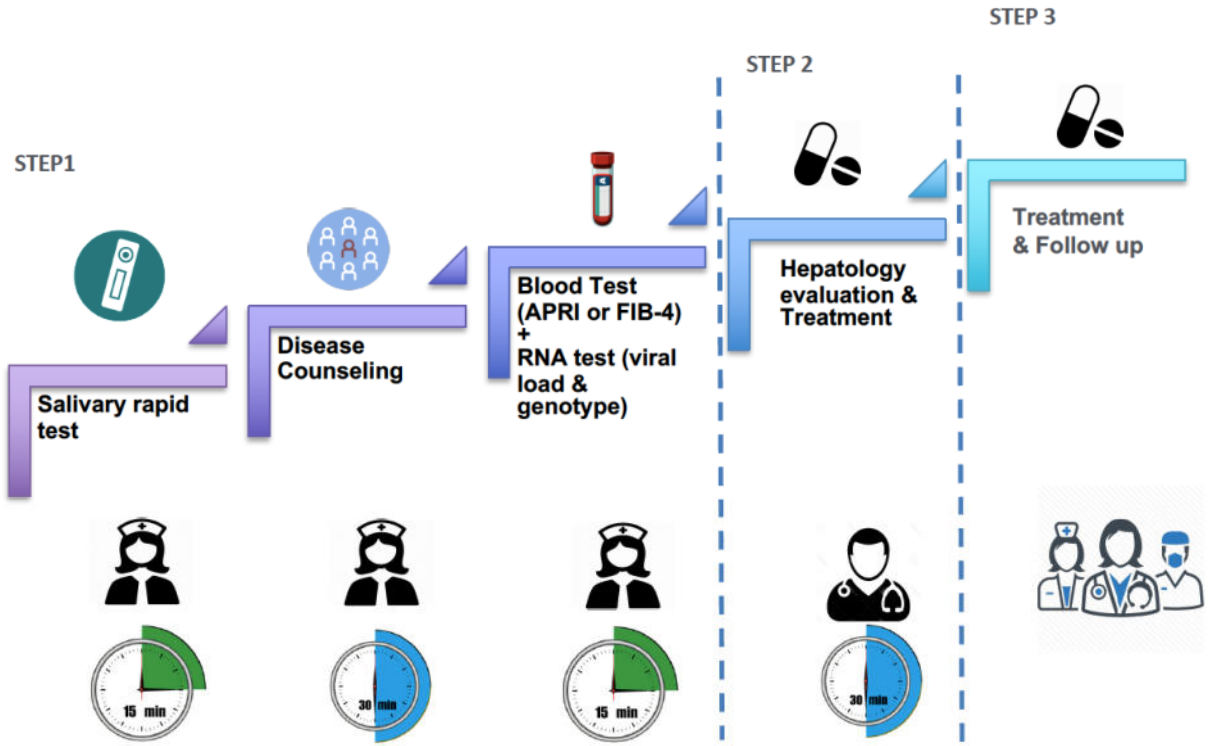
Bajis et al., 2017, Int. J. Drug Policy, 47: 34-46
Remy et al., 2016, AASLD 2016, Poster#775

Test & Treat: Point of Care



F.A. Nava, 2019; Quaderno ReAdfiles, Suppl. N. 1, n.1, 10-15

Test & Treat: Point of Care
(12 Criteria AIFA Removed)



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EASL HCV treatment recommendations 2020

Simplified treatment algorithm

- Improving access to HCV therapy has become a worldwide priority
- When genotype/subtype determination is not available, not affordable and/or limits access, simplified treatment should be used to facilitate the cascade of care
- Groups who will benefit from a streamlined care pathway:

PWID	Prisoners	Homeless individuals	Migrants	Rural communities with poor access to care
People with mental health disorders	People with substance use disorders	MSM	Sex workers	Indigenous populations

"Pangenotypic HCV drug regimens can be used to treat individuals without identifying the HCV genotype and subtype"

Genotype/subtype determination-based algorithm

- Where available and affordable, and access to care would not be limited, genotype/subtype determination could optimise results in some grou

GT 1b | GT 3a CC

- If sequence analysis of the NS5B coding region is available and affordable it should be performed in:

Patients born in sub-Saharan Africa, China or South-East Asia

1l | 4r | 3b | 3g | 6u | 6v

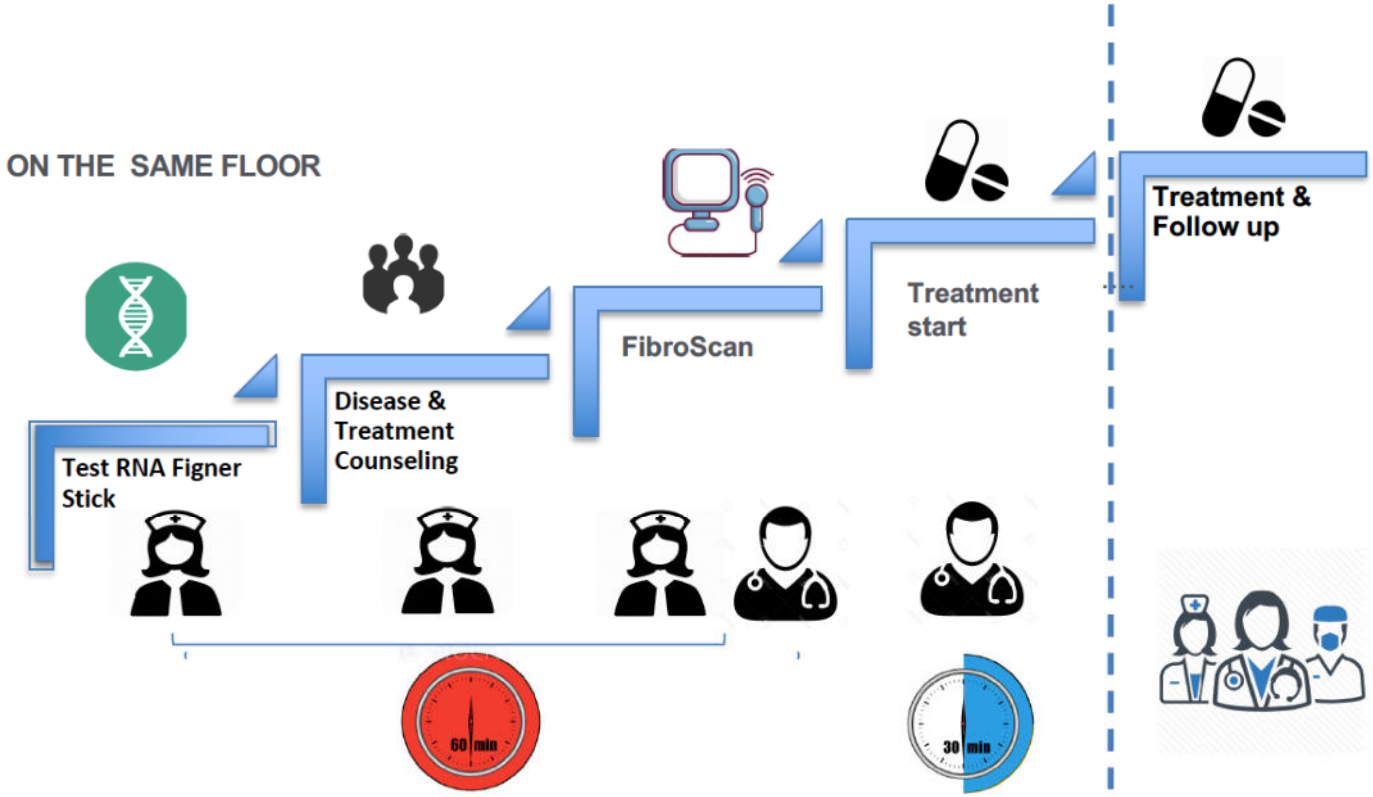
- EASL CPG HCV. J Hepatol 2020; https://doi.org/10.1016/j.jhep.2020.08.018
- CC, compensated cirrhosis; GT, genotype; MSM, men who have sex with men; PWID, people who inject drugs

Simplified, genotyping-/subtyping-free treatment with pangenotypic regimens

- Simplified, genotyping-/subtyping-free pangenotypic treatment must be used **to improve access to HCV treatment** and increase the global infection cure rates **in any setting** where genotype and subtype determination is not available, affordable and/or would limit access to therapy (A1)
- Pre-treatment assessment can be limited to the presence of HCV viraemia and the presence or absence of cirrhosis by a non-invasive method (A1)
- Possible DDIs should be carefully checked and dose modifications implemented when necessary (A1)
- Testing for SVR12 can be omitted in all adherent patients except those with high-risk behaviours and risk of reinfection (B1)

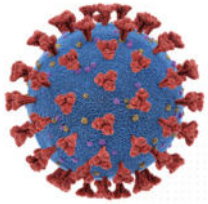
- EASL CPG HCV. J Hepatol 2020; https://doi.org/10.1016/j.jhep.2020.08.018
- DDI, drug–drug interaction; SVR12, sustained virological response 12 weeks after the end of treatment

Test & Treat: Point of Care (Fast-Track) (Genotype Removed)



Nava FA. Personal communication (model modified from Grebely et al., 2017, Expert Rev. Mol. Diagn., 17(12: 1109-1115

Test & Treat Project: SerD e Carceri



Il continuare dell'emergenza COVID-19

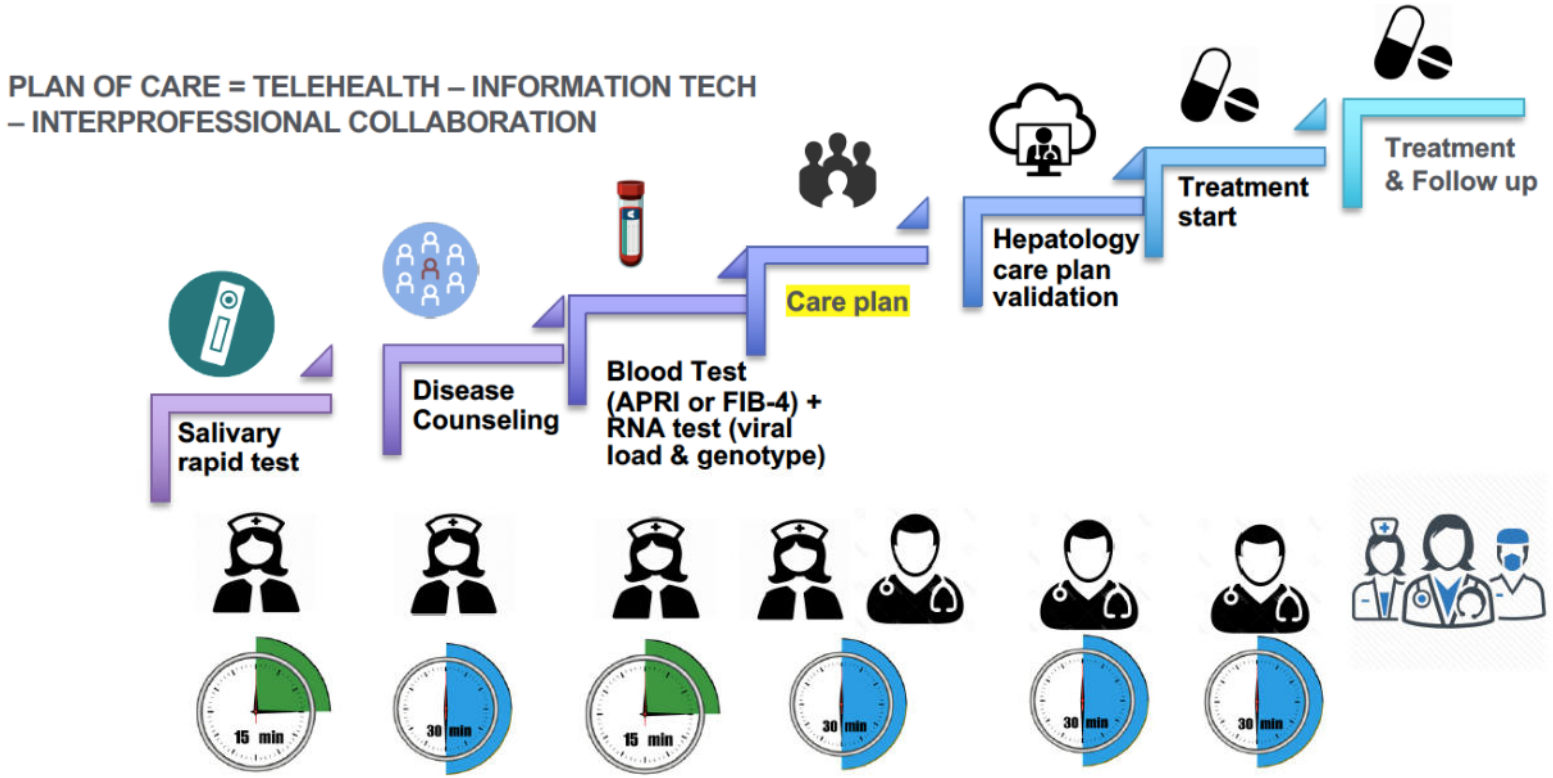
Ministero della Salute

DIREZIONE GENERALE DELLA PREVENZIONE SANITARIA
UFFICIO 5
Prevenzione delle malattie trasmissibili e profilassi internazionale

Gruppo di Lavoro per la redazione del decreto interministeriale ai sensi dell'art. 25 sexies del D.L. 30 dicembre 2019 n. 162

L'offerta di test rapidi (capillari e RNA finger stick) per tutta la popolazione in carico ai SerD per il 2020-21

Test & Treat: Plan of Care



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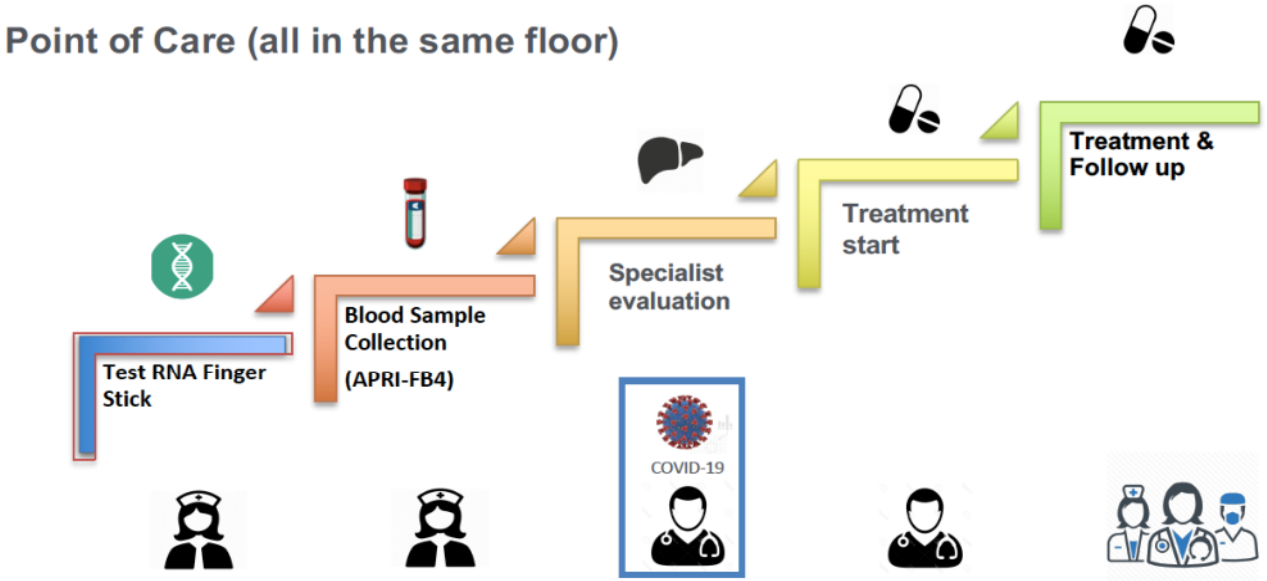
Test & Treat Project: SerD e Carceri

I **medici infettivologi/epatologi** attraverso **il piano di cura** redatto dai **medici dei SerD e delle carceri** all'interno del percorso per i pazienti **HCV +** predispongono l'**inizio del trattamento**:

- scegliendo il farmaco da somministrare;
- stabilendo le modalità di monitoraggio e di follow-up

I **medici dei SerD e presso le carceri,** come predisposto dai **medici infetivologi/epatologi,** eseguiranno il monitoraggio e il follow-up

Point of Care at COVID-19 Era



F.A. Nava, Personal Communication

EASL HCV treatment recommendations 2020

Treatment-naïve/treatment-experienced patients with or without compensated cirrhosis

Simplified treatment (no genotype/subtype determination)*

Genotype	Cirrhosis status	Treatment history	SOF/VEL	GLE/PIB	SOF/VEL/VOX	GZR/EBR
All genotypes	No cirrhosis	Treatment-naïve	12 weeks	8 weeks	No	No
		Treatment-experienced				
	Compensated cirrhosis (CTP A)	Treatment-naïve				
		Treatment-experienced		12 weeks		

- Treatment-experienced defined as previously treated with PEG-IFN + RBV; SOF + PEG-IFN + RBV; or SOF + RBV.
- *Whenever HCV genotype and subtype determination is not available, not affordable and/or limits access to care.
- CTP, Child–Turcotte–Pugh; EBR, elbasvir; GLE, glecaprevir; GZR, grazoprevir; PEG-IFN, pegylated interferon; PIB, pibrentasvir; RBV, ribavirin; SOF, sofosbuvir; VEL, velpatasvir; VOX, voxilaprevir
- EASL CPG HCV. J Hepatol 2020; https://doi.org/10.1016/j.jhep.2020.08.018

Drug-drug interactions between HCV DAAs and illicit/recreational drugs or drug of abuse

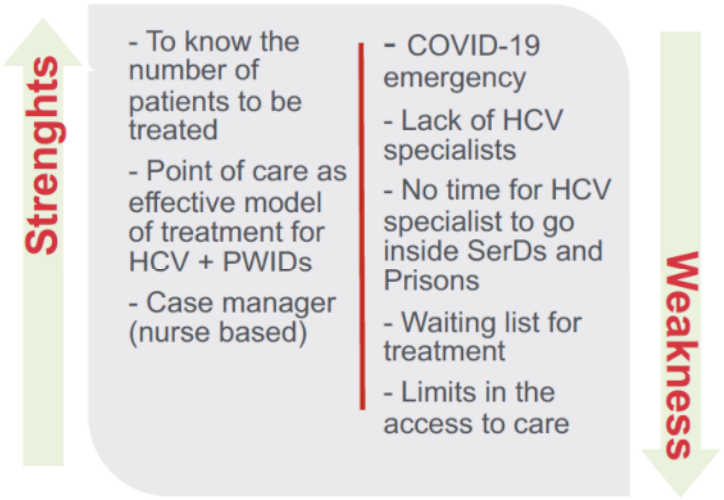
	SOF	SOF/VEL	SOF/VEL/VOX	GLE/PIB	GZR/EBR
Amphetamine	◆	◆	◆	◆	◆
Cannabis	◆	◆	◆	◆	◆
Cocaine	◆	◆	◆	◆	◆
Diamorphine	◆	◆	◆	◆	◆
Diazepam	◆	◆	◆	◆	◆
Fentanyl	◆	◆	◆	■	■
Gamma -hydroxybutyrate	◆	◆	◆	■	■
Ketamine	◆	◆	◆	◆	◆
MDMA (ecstasy)	◆	◆	◆	◆	◆
Mephedrone	◆	◆	◆	◆	◆
Methadone	◆	◆	◆	◆	◆
Methamphetamine	◆	◆	◆	◆	◆
Oxycodone	◆	◆	◆	■	■
Phencyclidine (PCP)	◆	◆	◆	◆	◆
Temazepam	◆	◆	◆	◆	◆

DAAs, direct-acting antivirals; EBR, elbasvir; GLE, glecaprevir; GZR, grazoprevir; PIB, pibrentasvir; SOF, sofosbuvir; VEL, velpatasvir; VOX, voxilaprevir.

EASL CPG HCV. J Hepatol 2020; https://doi.org/10.1016/j.jhep.2020.08.018

COVID-19 Era: The Active Ingredients

Points to consider:



Points to consider:

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- Clinical evaluation and treatment by addiction specialist
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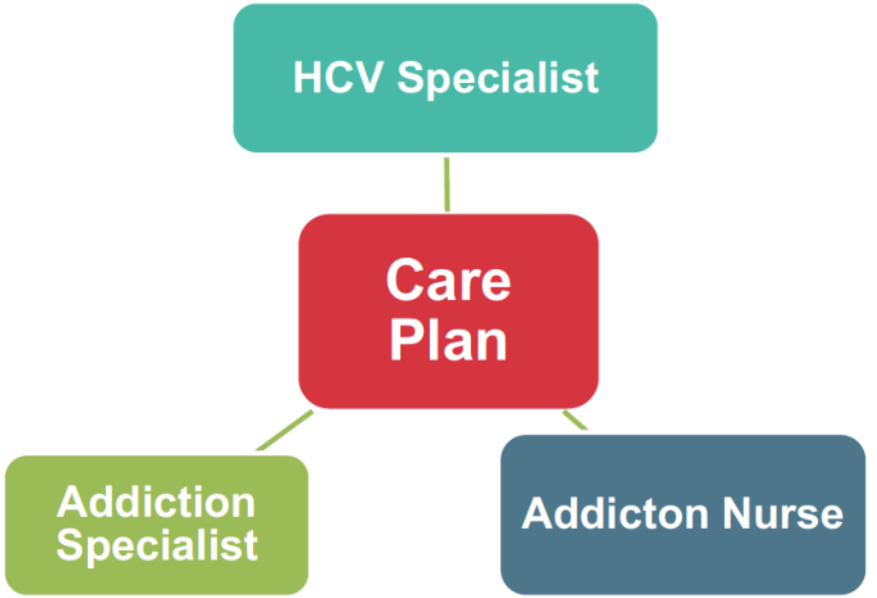

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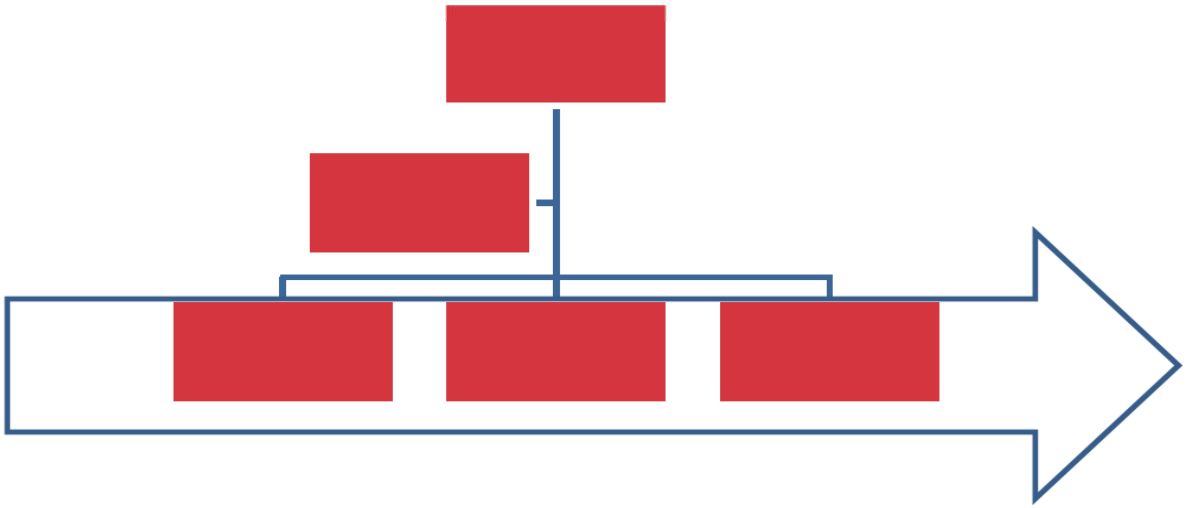
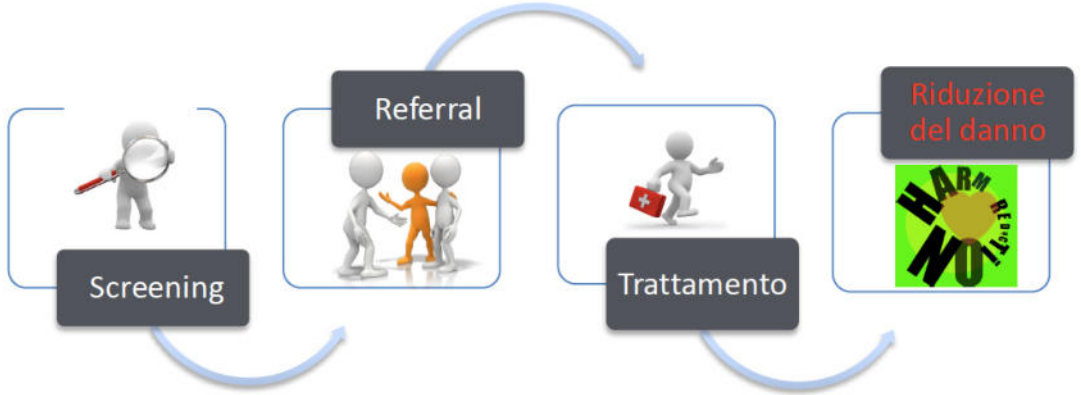
The organization should not preserve the “internal order” that can be a “barrier” for client’s need….

The organization is vertical while the client’s service is horizontal

George Fisher former Motorola CEO



Patient's Journey



For all drug users	For all HCV-positive patients	For all patients eligible for treatment	In all phases of treatment as suggested by the WHO

Nava FA, et al. Italian Quarterly Journal of Addiction 2018:Mission 49:56–61

The Point of Care

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Vold et al., 2019, BMC Infect Dis, 19:306
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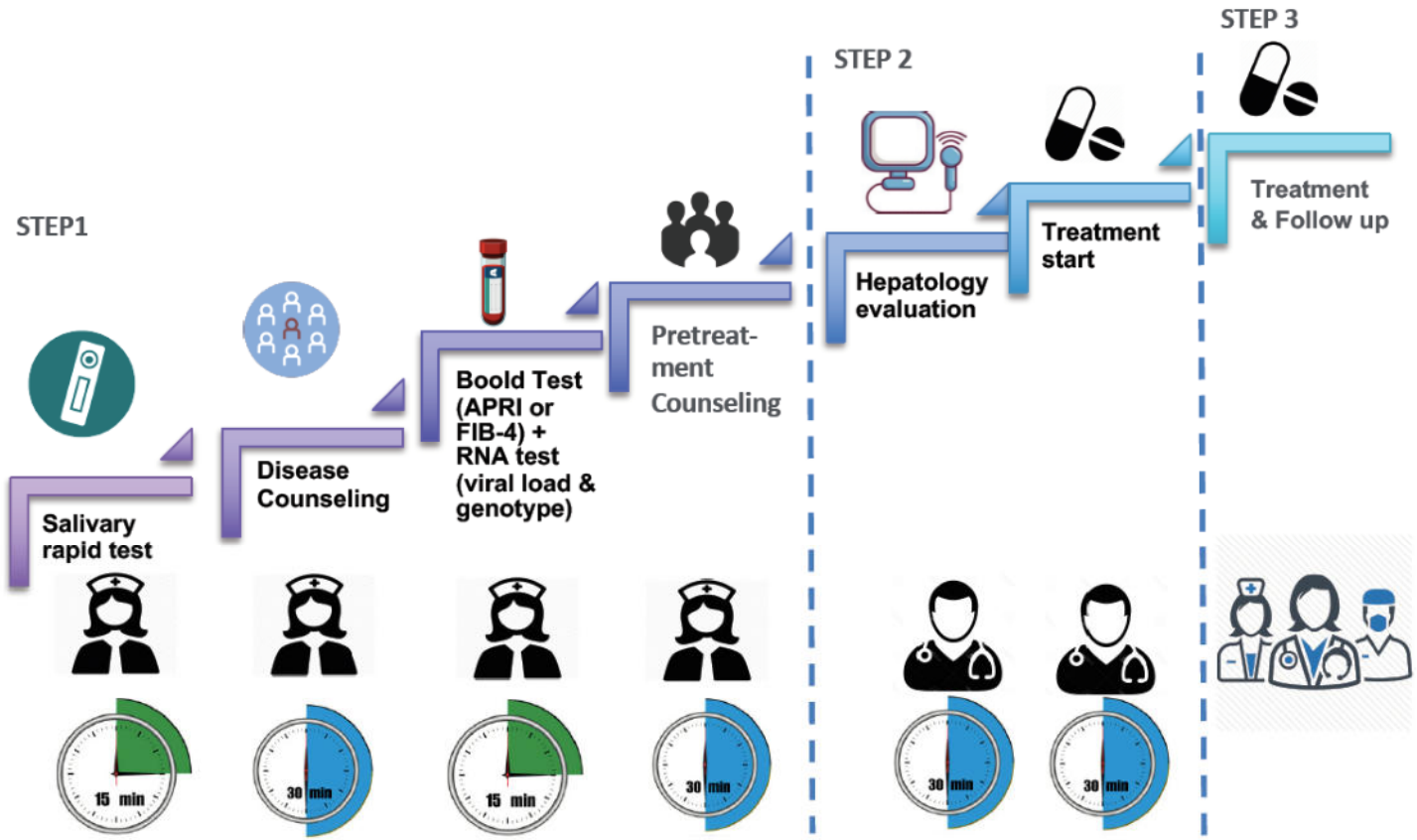
Test & Treat: Point of Care



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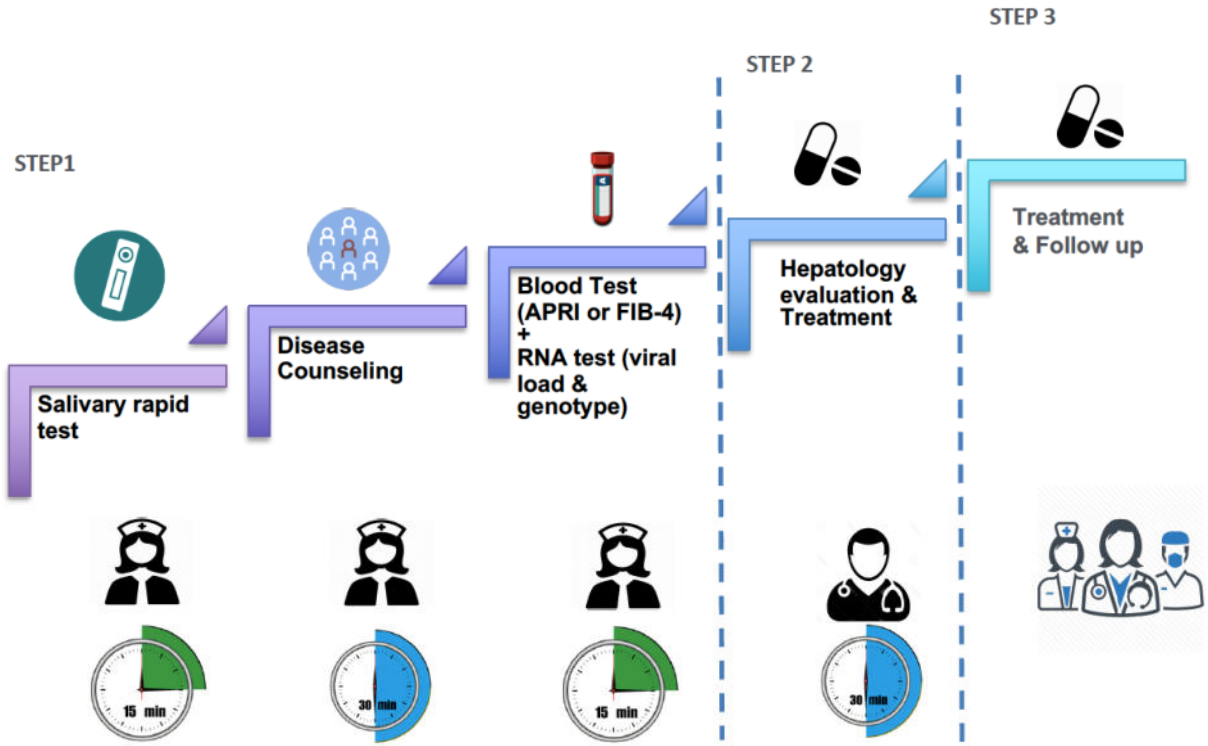

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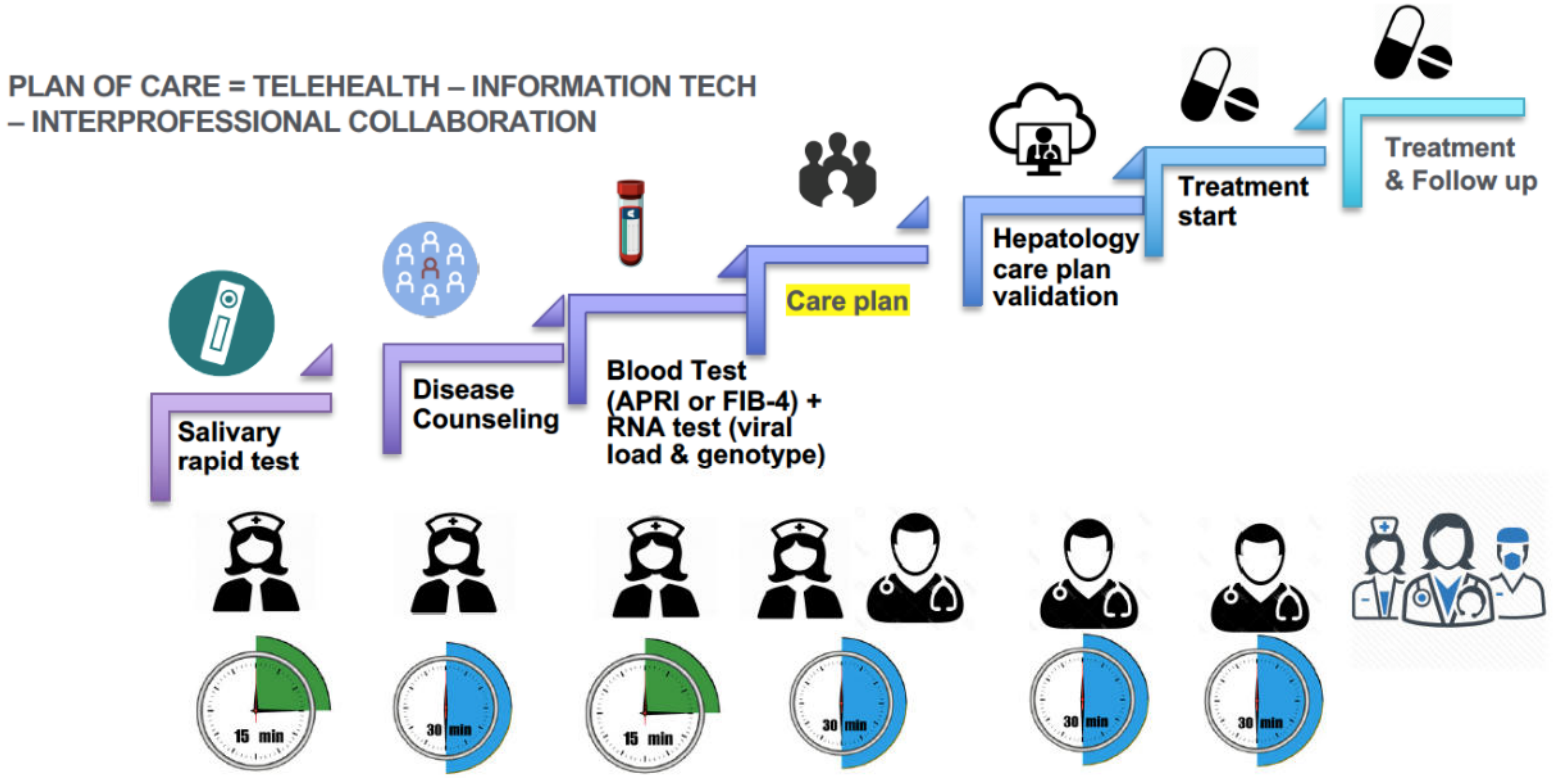
Test & Treat: Plan of Care



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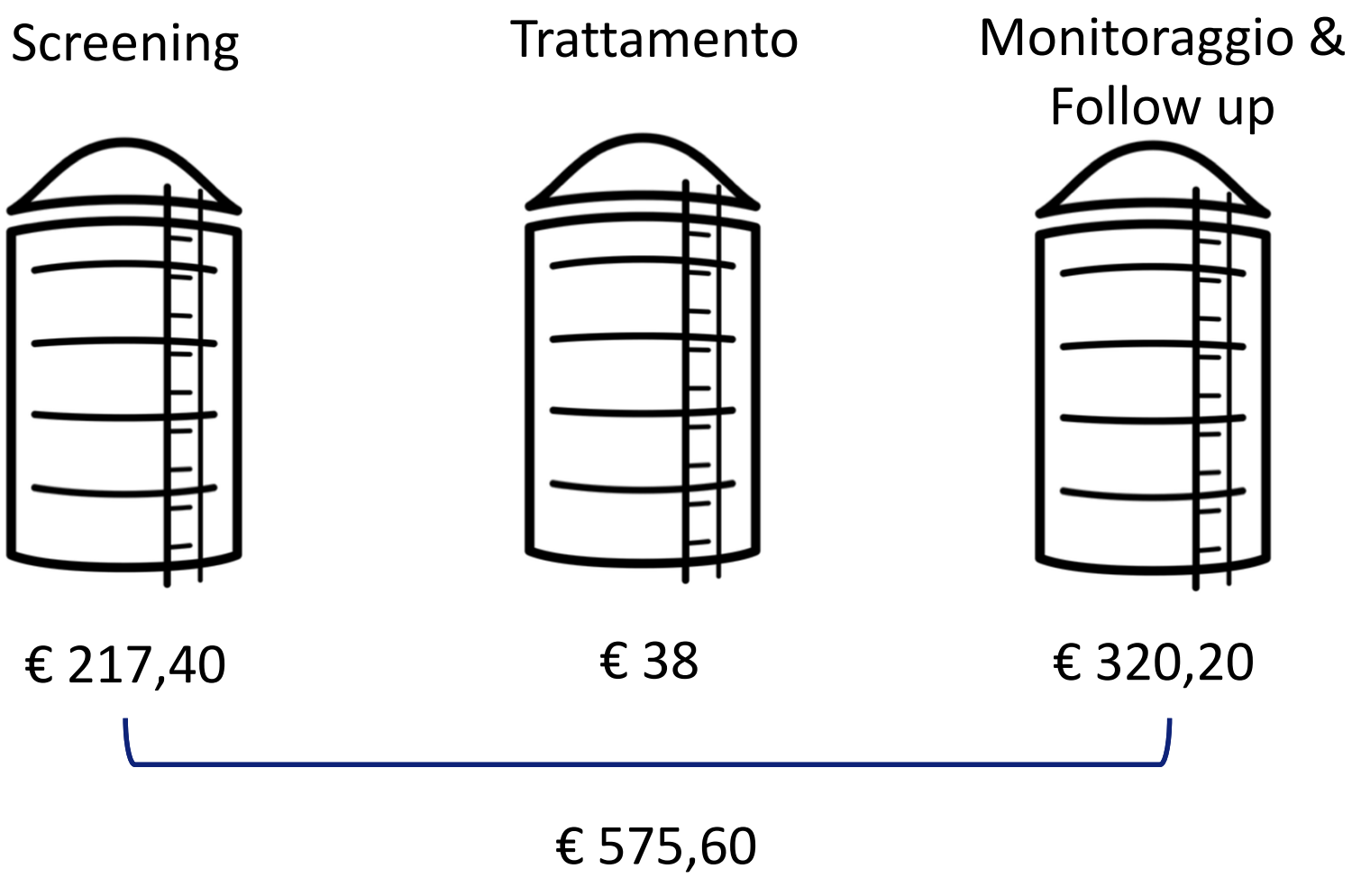
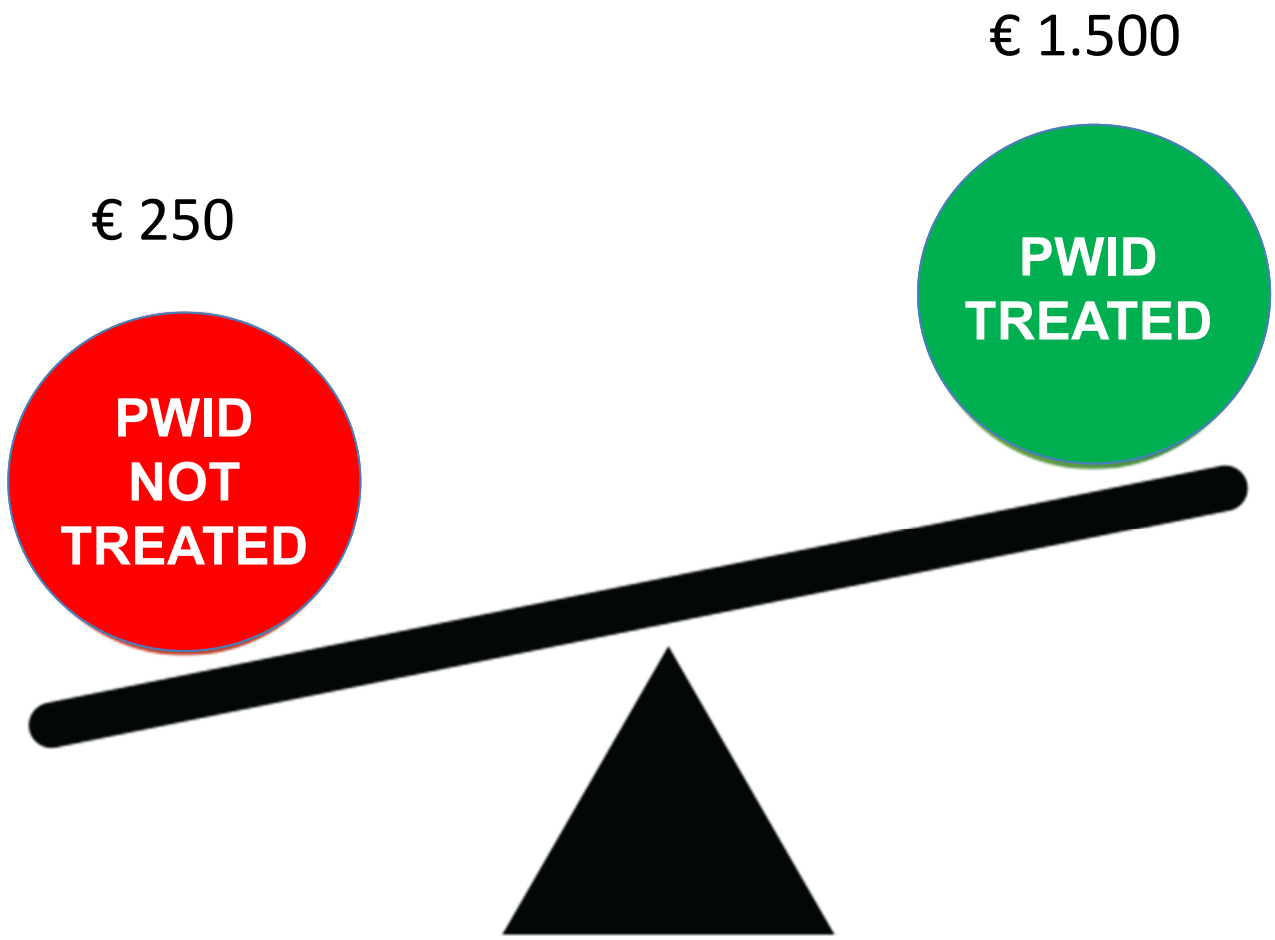
Cost for «health care silos»: point of care



F.A. Nava, Personal Communication

Patient's Journey: Health Cost



Nava et al., 2018, ReAdfile, 19: 35-38

Cost Health Back

PWID Treated
(cost per treatment)
€ 1.500

PWID Not Treated
(cost per year)
+ € 250

3 years
X 20

PWID to be Treated
(cost per 20 treatments)
€ 30.000

Nava et al., 2019, IJERPH, in press

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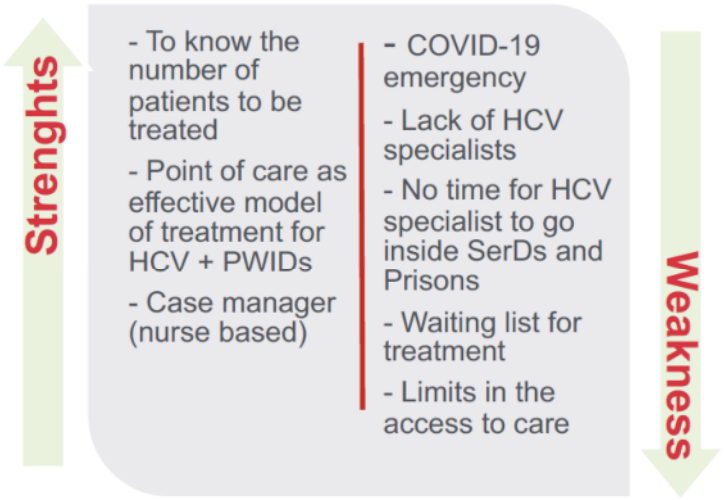

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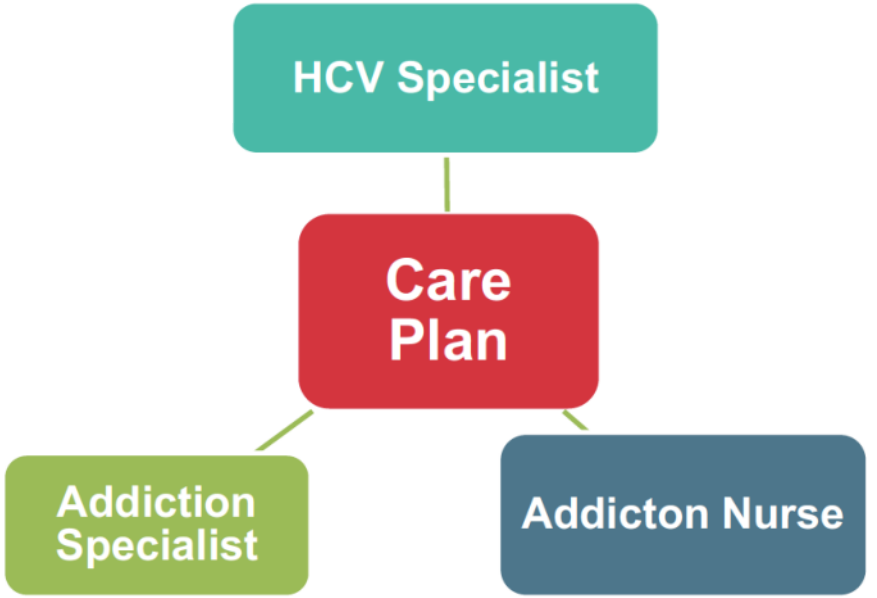

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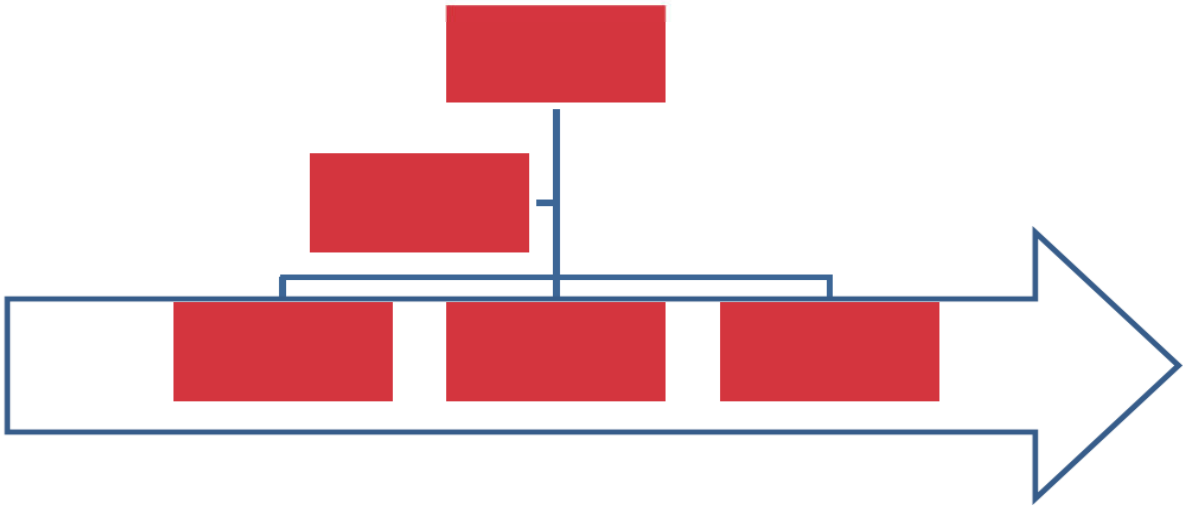
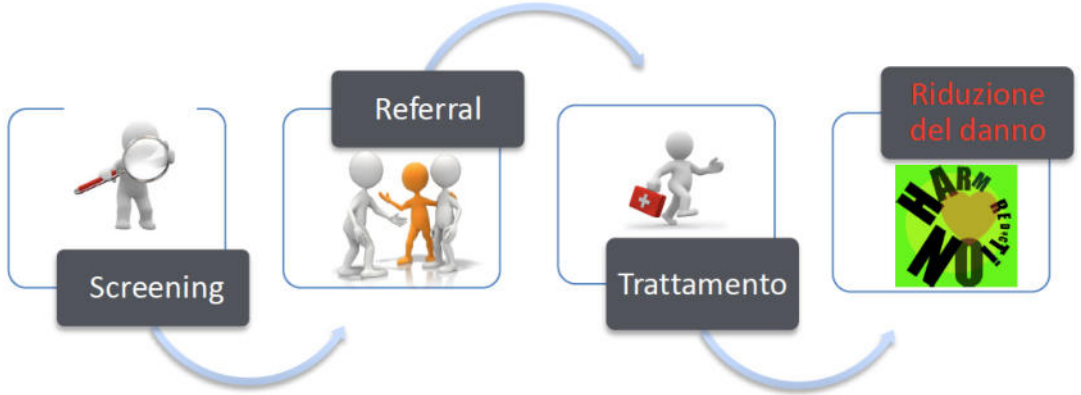
The organization is vertical while the client’s service is horizontal

George Fisher former Motorola CEO



Patient's Journey



For all drug users	For all HCV-positive patients	For all patients eligible for treatment	In all phases of treatment as suggested by the WHO

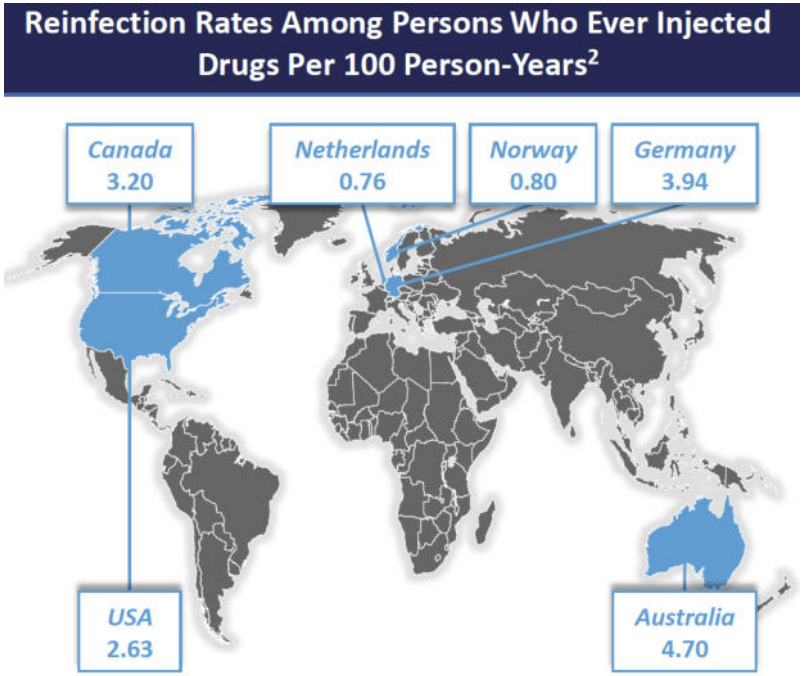
Nava FA, et al. Italian Quarterly Journal of Addiction 2018:Mission 49:56–61

HR in drug users (1)

HR in drug users (2)

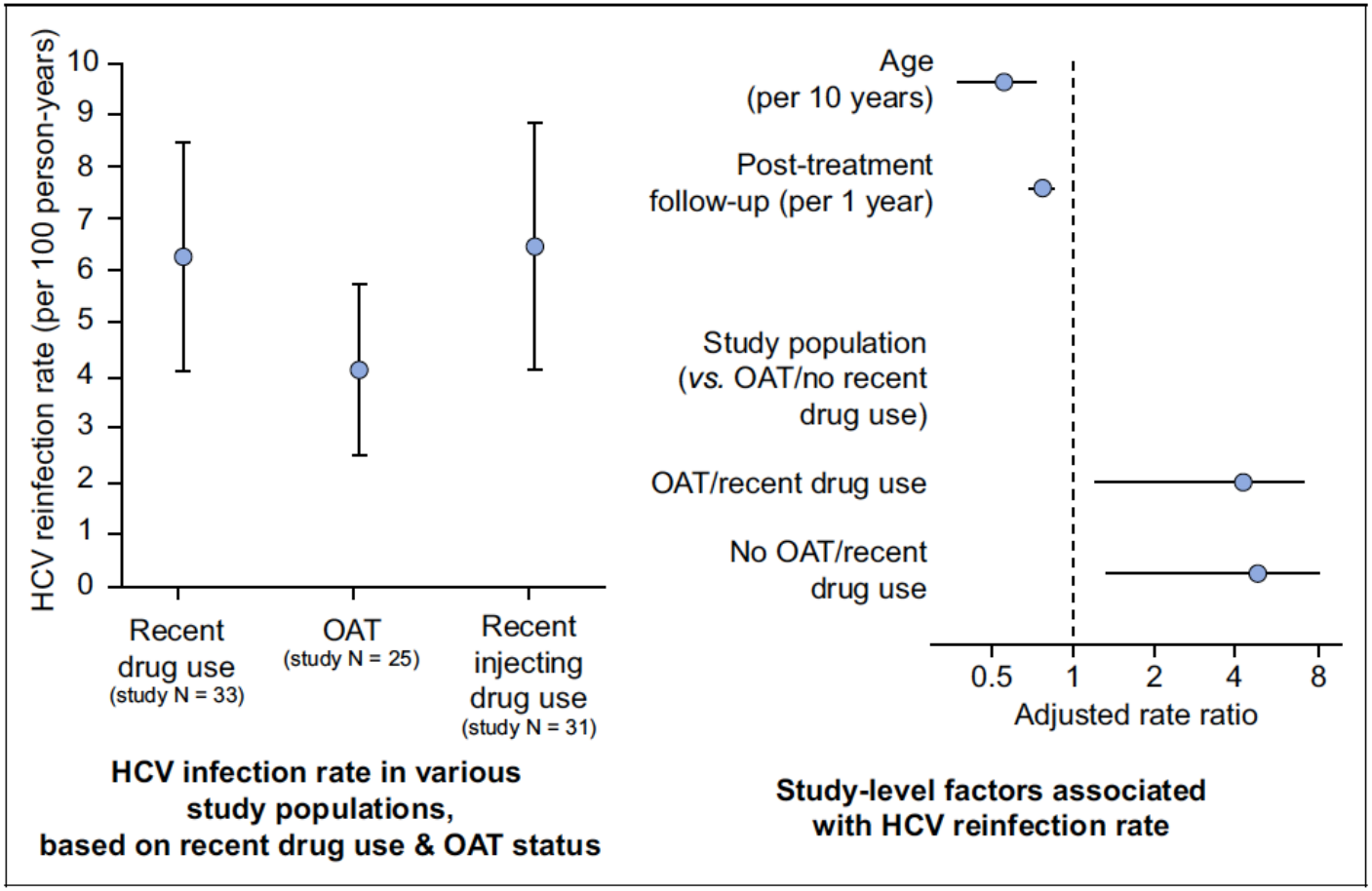
Il rischio di infezione nei PWID:
2.4 (95% CI 0.9-6.1)
per 100 soggetti-anno

HARM REDUCTION



Aspinall E.J. et al., Clin. Infect. Dis. 2013: 57 (suppl. 2), S80-S89

HR in drug users (3)



Hajarizadeh et al., 2020, 72: 643-657

HR in drug users (3)

- The rate of re-infection was lowest among people receiving opioid therapy agonist with no recent use
- The rate of HCv re-infection was comparable after re-infection therapy or direct-acting antiviral therapy
- A higher rate of HIV-re-infection was observed in studies with shorter follow-up

Hajarizadeh et al., 2020, 72: 643-657

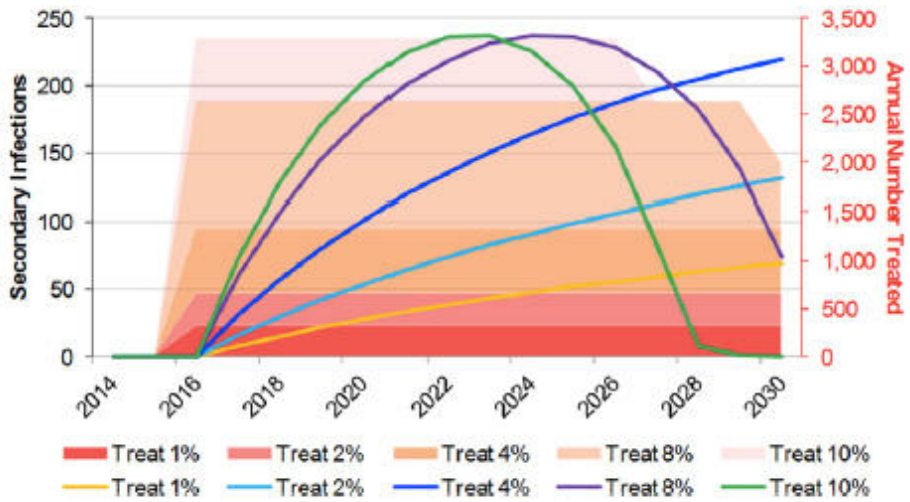


Fig. 1. Modeling the effect of HCV treatment on reinfection in people who inject drugs (PWID). Mathematical modeling was used to evaluate the effect of increased treatment on hepatitis C virus (HCV) reinfection among PWID in Australia. Each line represents the expected number of individuals with HCV reinfection (secondary infections, left axis) in each year, based on a given annual HCV treatment scenario. The colored lines represent the annual proportion of PWID treated per year. Permission to reproduce the image has been obtained from the author.[84] (*Courtesy of* Homie Razavi, PhD, Denver, CO, with permission; and *Reproduced from* Razavi H. Reducing a country's HCV-disease burden. The 4th International Symposium on Hepatitis in Substance Users (INHSU 2015). Sydney, Australia, October 7–9, 2015, with permission.)

Harm Reduction Kit

Information provided by Dr Felice Alfonso Nava

Go Beyond: Point of care as New Paradigma

- Effective
- Simple
- Access to care
- Team work & Clinical Network
- Cost-effectiveness (“health return”)

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