

# Effective model of care as the cornerstone of HCV elimination

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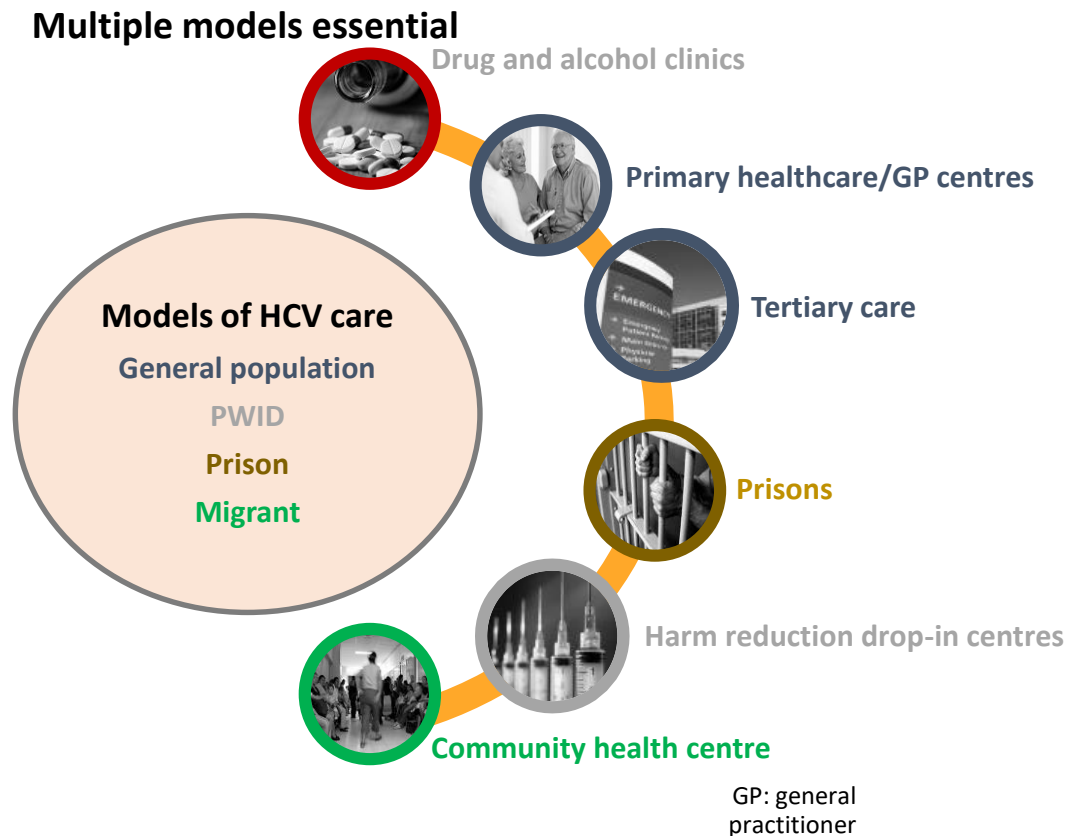
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# Disclosures

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# Different models of HCV care are needed for different HCV subpopulations for testing and treatment



**Source:** Bruggmann P, Litwin AH. *Clin Infect Dis* 2013;57(Suppl 2):S56–61.

# Models of care – definition

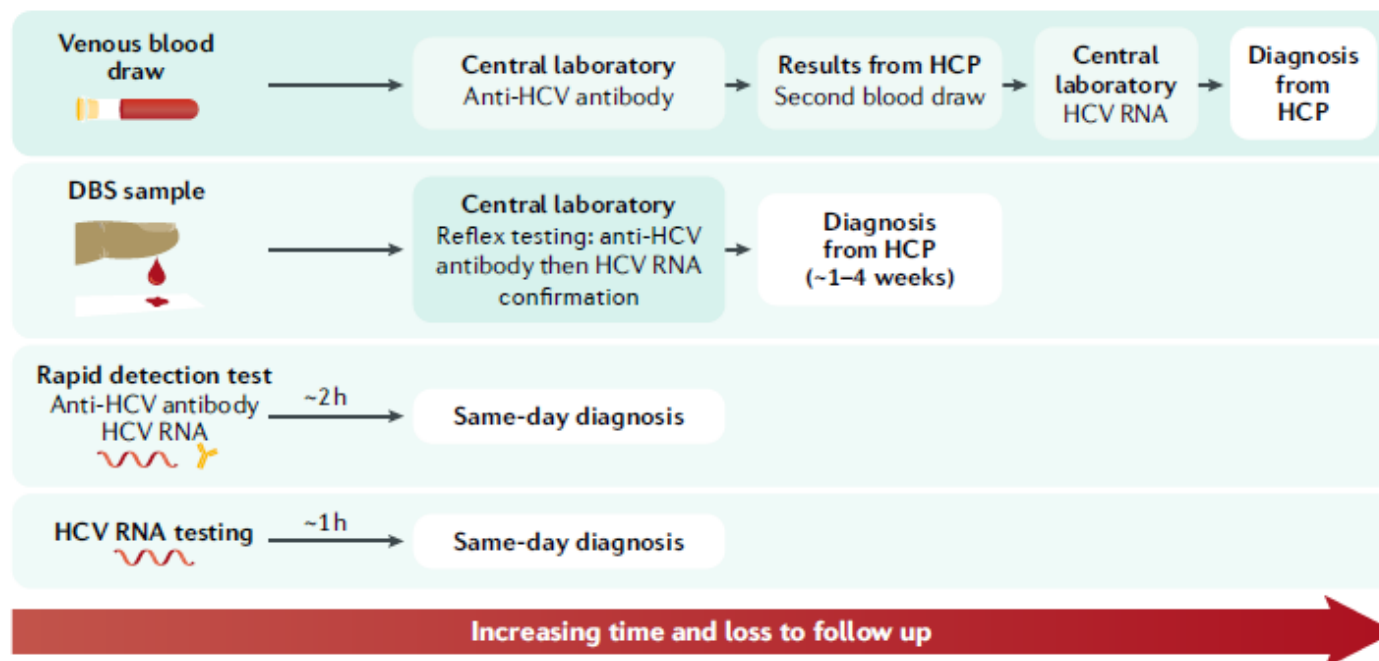
A model of care (MoC) signifies a setting-specific framework that outlines how to provide the relevant services and interventions throughout the HCV cascade of care.

An MoC should address four key questions:

1. *where* to provide the services
2. *what* services to provide
3. *who* to provide them and
4. *how* to integrate them.

**Source:** Lazarus JV et al. We know DAAs work, so now what? Simplifying models of care to enhance the hepatitis C cascade. *J Int Med* 2019 In press.

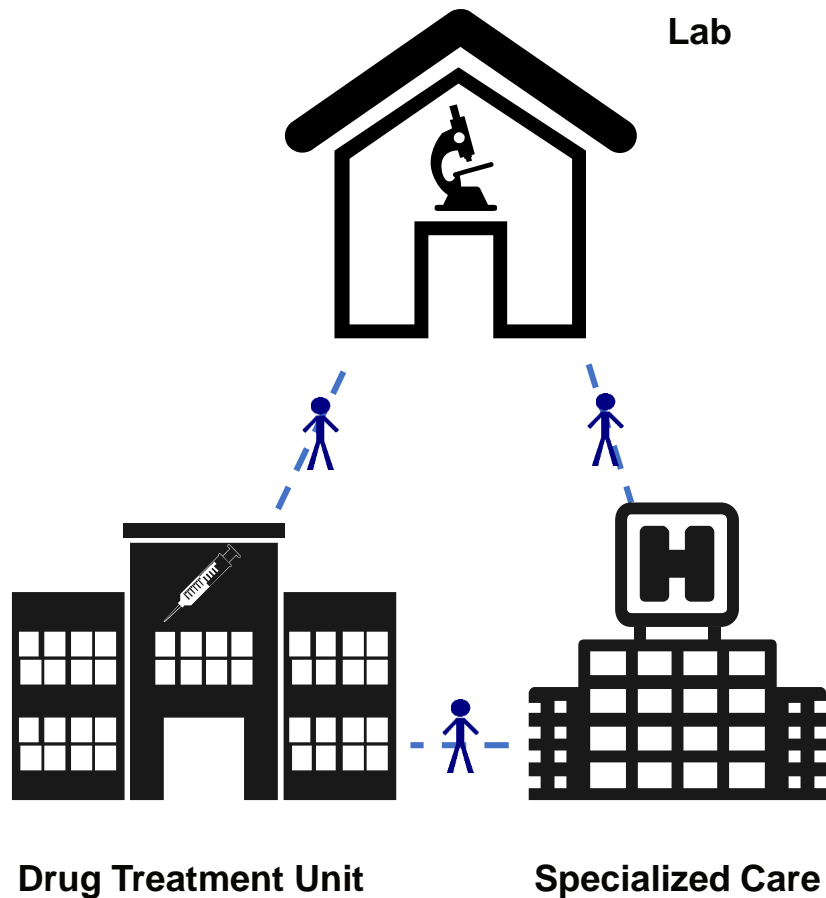
# Fewer visits please...



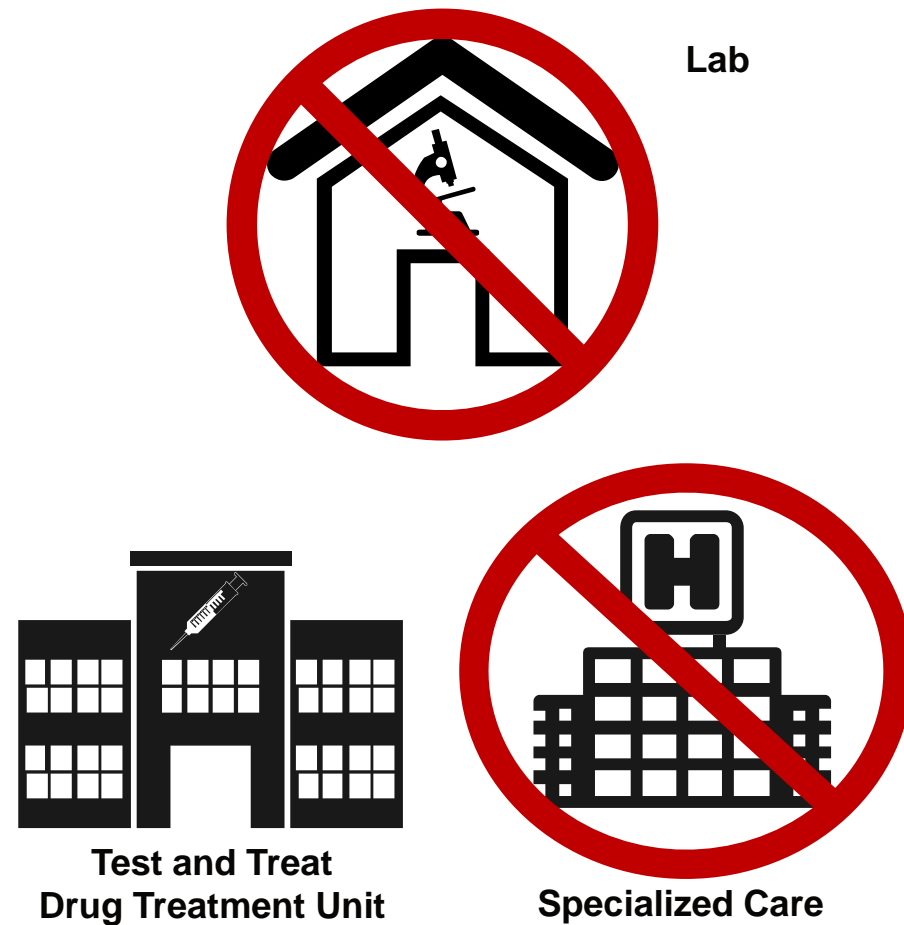
**Fig. 1 | Examples of different point-of-care HCV testing.** The time taken to receive hepatitis C virus (HCV) testing results can vary greatly. The current standard for HCV testing (top line) consists of a venous blood draw and, if the sample is anti-HCV antibody positive, a request for a confirmation test, which typically requires a second blood draw. Reflex testing, in which the same sample is automatically tested if the first test is positive, is not standard of practice in most countries despite greater efficiency. Different point-of-care (PoC) HCV tests exist. Dried blood spot (DBS) testing can be performed by almost all health-care staff with minimal training. DBS is particularly beneficial for marginalized populations and in resource-limited settings, where there are longer blood transportation times. However, DBS use is not approved in most countries. At present, rapid RNA PoC testing is not widespread owing to a lack of awareness and commitment to HCV elimination and comparative cost. Rapid (<1 h) RNA testing could simplify diagnosis, especially for marginalized populations receiving care in non-hospital and non-clinic settings or in resource-limited areas. For PoC tests, especially RNA tests, specialist skills might be required to take samples or operate the machine, which could restrict use. Rapid RNA PoC testing can be preceded by rapid (20–40 min) antibody testing to reduce costs, but time to final diagnosis is increased in patients who are positive. HCP, health-care provider.

# Case 1. Where Would You Want To Be Treated?

Former care model



Current care model



**Source:** Shared Addiction Care Copenhagen (SACC) Report 2017.  
Available at: <http://www.chip.dk/Collaborations/SACC> (accessed July 2018).

## Case 2. T'n'T, Copenhagen Denmark

- Running from April 2019.
- Peer-led by Brugernes Akademi, Denmark, with on-site nurses.
- GeneXpert<sup>®</sup> machine in the van.



*Source:* Lazarus 2019

# Case 2. T'n'T, Copenhagen Denmark



- Linkage to care at hospital – medicine can be delivered to the van.
- Parked behind the main train station in Copenhagen, Denmark's largest open drug scene



Source: Lazarus 2019



## Case 3. Background: HCV testing at pharmacies project

- Based on original model of community pharmacy testing piloted by the London Joint Working Group.
- 8 machines based in the top 8 needle exchange pharmacies in Birmingham and Manchester.
- Live from mid-July 2018

*Source:* Ahmed Elsharkawy, Birmingham, UK. Personal communication, Oct 2018.

# The Technology – Pin Prick Based

## 3 Easy Steps

1

Collect 100µl blood in the Minivette provided



2

Transfer sample to the cartridge



3

Insert cartridge in the system and start the test



## Can a pharmacist do this in your country?



In Vitro Diagnostic Medical Device

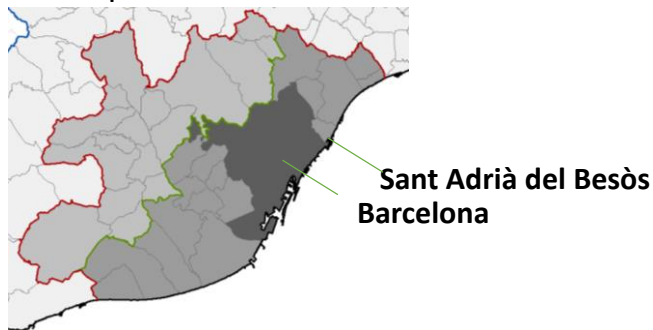
Not available in all countries. Not available in the United States.

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# Case 4: Decentralised testing + micro-elimination - Barcelona

## Harm reduction center “El Local”

Metropolitan area of Barcelona



- **“La Mina”**  
neighbourhood  
important drug  
trafficking area  
in Spain



- **“El Local”**

2,700 different users in 2017  
86,400 inj. drug consumes  
182,800 syringes distributed  
110,800 syringes returned



- Distribution of needles, syringes and paraphernalia
- Drug consumption room
- Outreach-street work
- Breakfast/snacks
- Showers and clean clothes
- Screening (HCV, HIV, TB)
- Vaccination (HAV, HBV, tetanus)
- Educational sessions

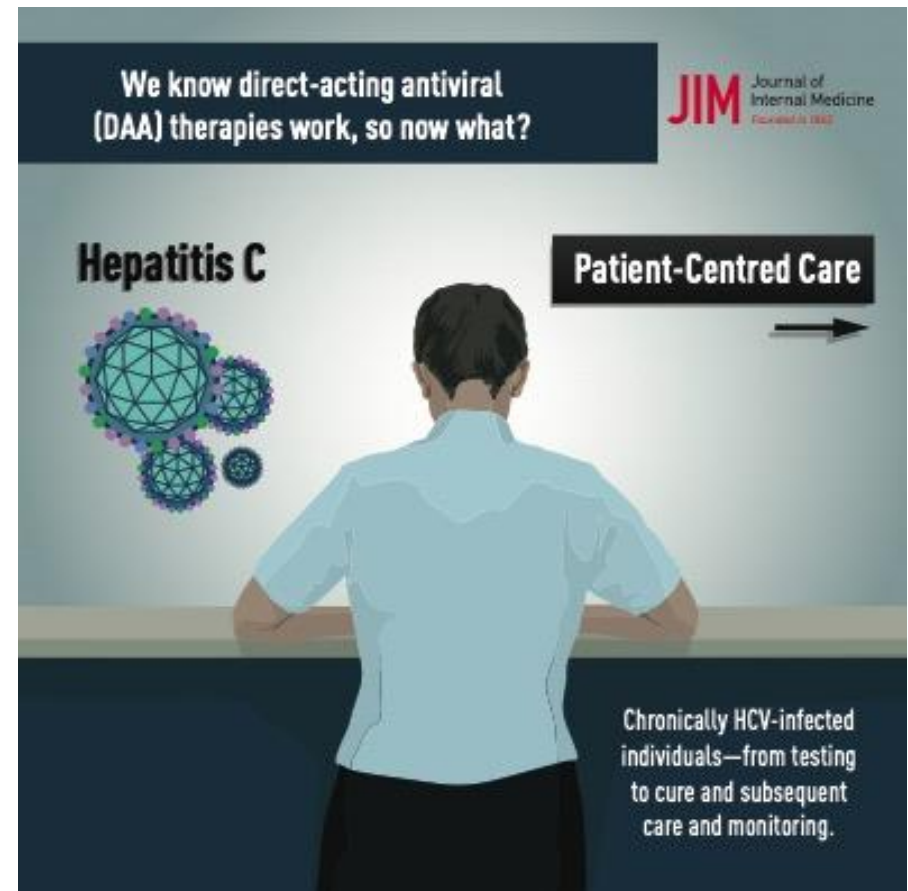
**Sources:** Saludes V et al. Evaluation of the Xpert® HCV viral load fingerstick assay in the harm reduction setting in Catalonia, Spain [Short oral]. 8th International Symposium on Hepatitis Care in Substance Users. Montreal, Canada. 2019.

Lazarus JV et al. The micro-elimination approach to eliminating hepatitis C: strategic and operational considerations. *Seminars in Liver Disease*, July 2018; Lazarus JV, Wiktor SZ, Colombo M, Thursz M. Micro-elimination – a path to global elimination of hepatitis C. *Journal of Hepatology*, July 2017.

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# Conclusions

- Further research on the feasibility of different MoCs in specific settings is needed.
- Much can be learned from examining innovative MoCs, which suggest that an effective MoC for HCV infection should be:
  - Simple
  - Targeted
  - Multidisciplinary
  - Scalable
  - Integrated
  - Patient-centred and affordable.



**Source:** Lazarus JV et al. We know DAAs work, so now what? Simplifying models of care to enhance the hepatitis C cascade. *J Int Med* 2019 In press.

# Acknowledgements

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