

# Hepatitis C: innovations in treatment

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# Disclosures

- I have previously received speaker and/or consultancy fees from AbbVie, Gilead, MSD, Spring Bank and GSK



# Learning objectives

After this talk participants should be able to:

- **List the pharmacological treatment options available for HCV treatment in people who inject drugs (PWID)**
- **Understand the principles of treating patients with HCV**

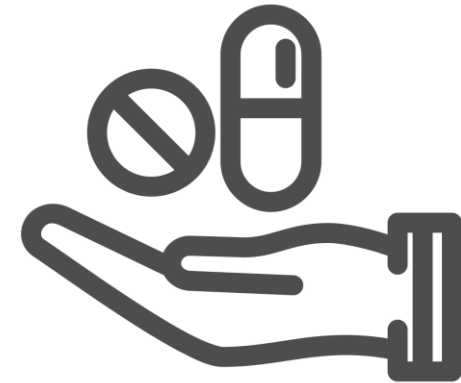
## Therapy for HCV: the bad old days...

- We used to do a liver biopsy on everyone
- We used to treat with interferon and ribavirin
- It was very unpleasant
- No one wanted therapy



## Therapy for HCV: today

- Tablet-only treatments
- Highly effective
- Fewer side effects

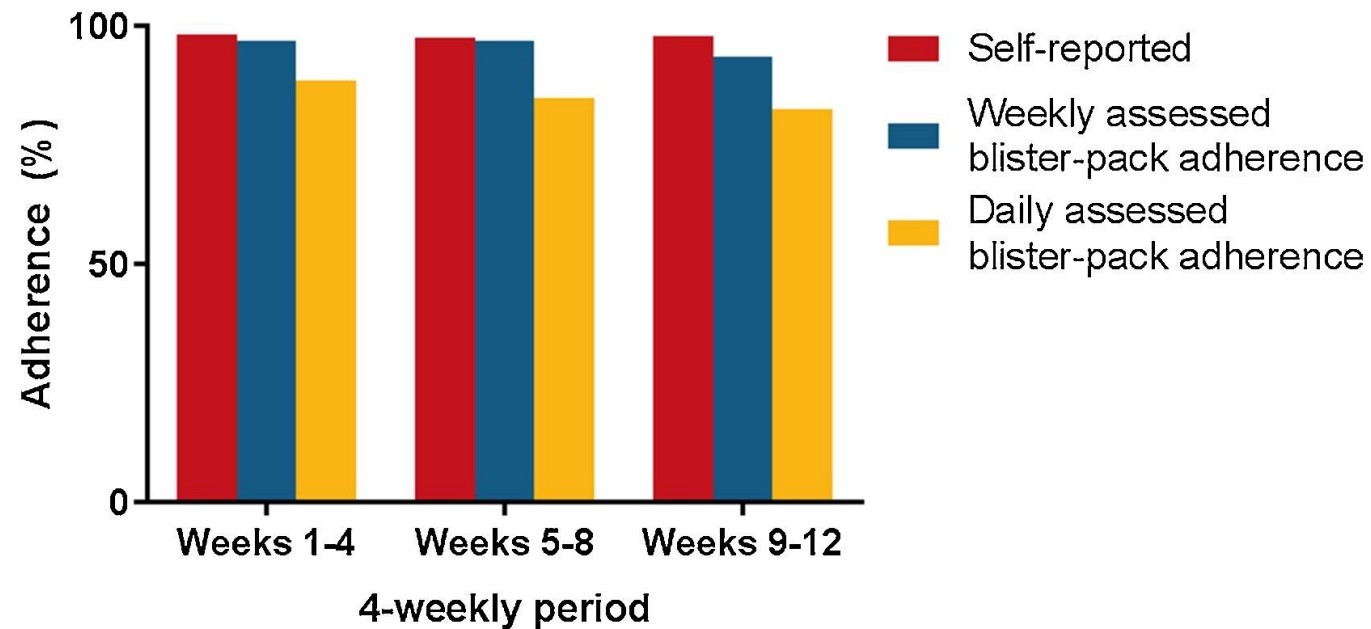


**EVERYONE** deserves the right to be **HCV-free**



# SIMPLIFY: sofosbuvir/velpatasvir in PWID

- In **active drug users**, 100 of 103 (**97%**) achieved SVR12
- Adherence was not perfect but this did not affect treatment response



# HCV treatment in drug users

- The new drugs work in active injectors

## **BUT**

- We need to get the new drugs to the patients
- We need you to do this

# Treating active injecting drug users A beginners guide

What the drugs are and how they work

How to use the drugs

When to ask for help







**IOTOD**

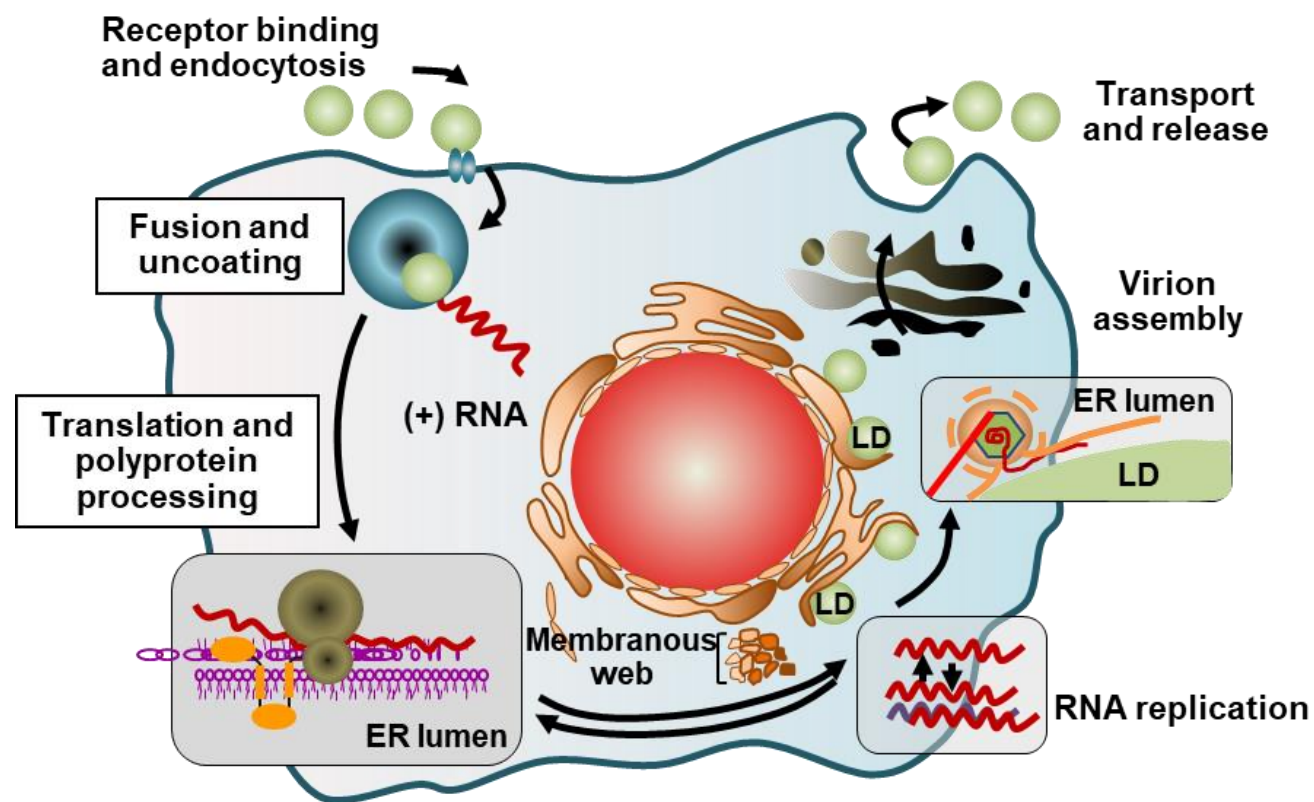
improving outcomes  
in the treatment  
of opioid dependence



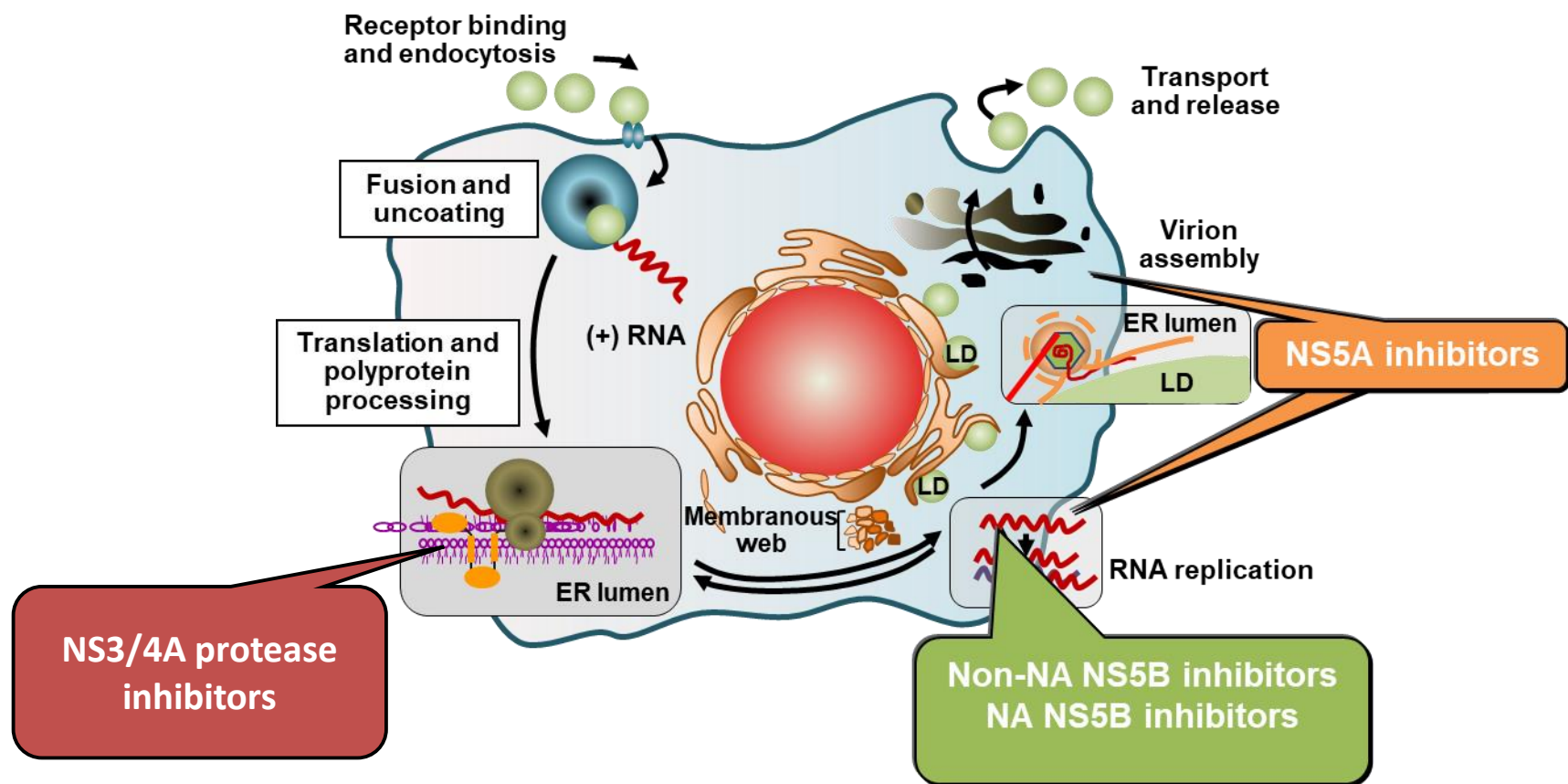
# Treating active injecting drug users A beginners guide

What the drugs are and how they work

# Hepatitis C: a popular flavivirus



# We now have efficacious DAAs that target different stages in the HCV lifecycle



## Direct-acting antivirals (DAAs)

- The trick is to combine two or more classes of drug

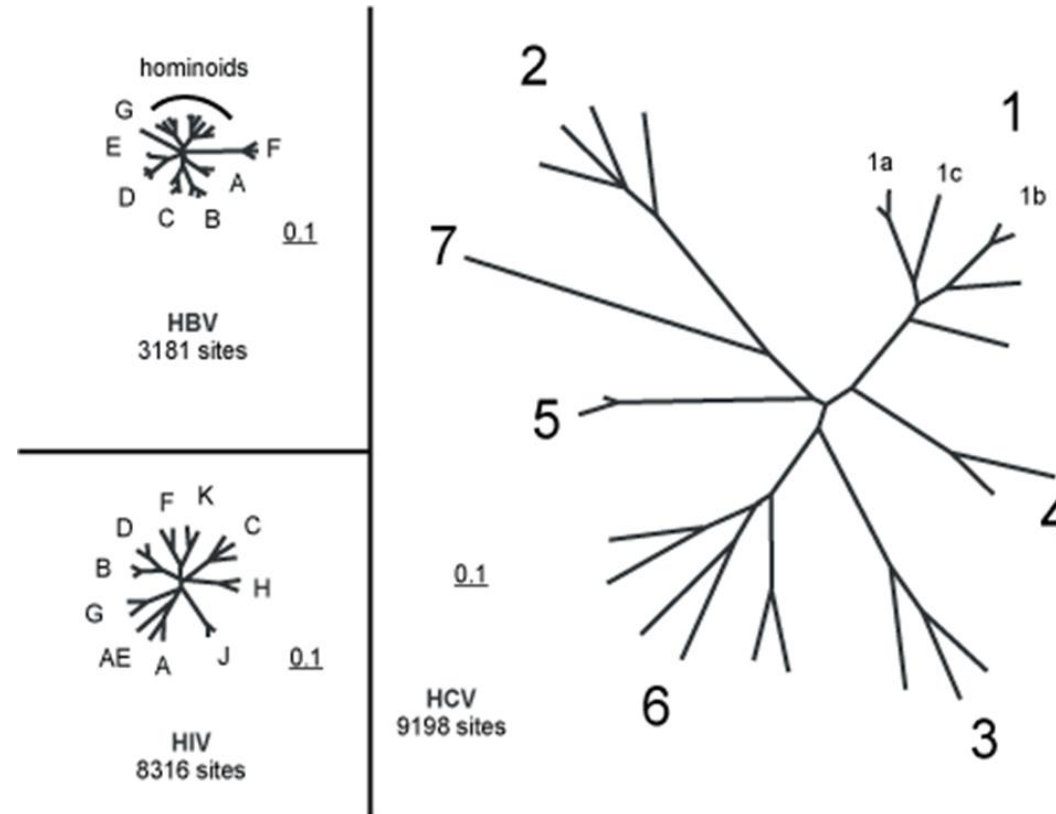
Usually:

- Nucleotide (NS5B inhibitor) + NS5A inhibitor
- Protease inhibitor + NS5A inhibitor



# HCV genotypes

## Some drugs are genotype-specific



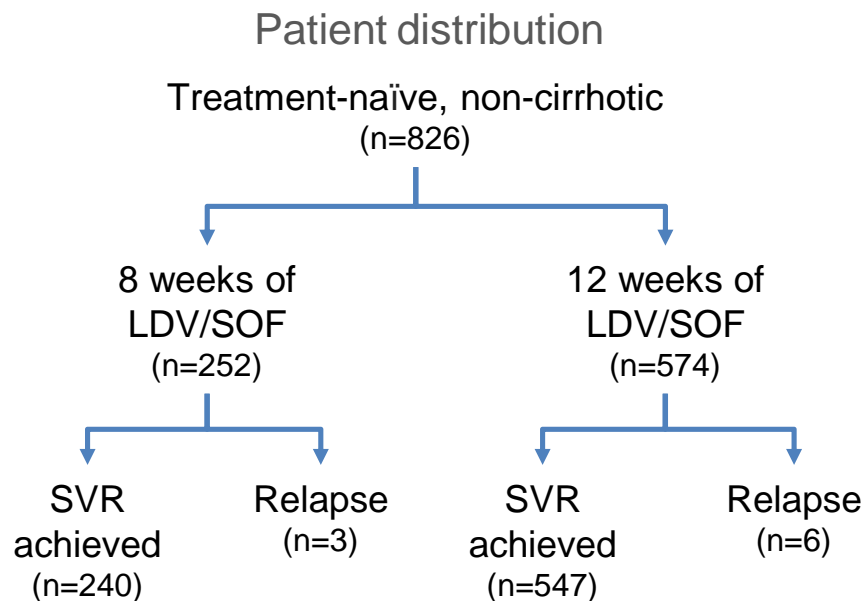
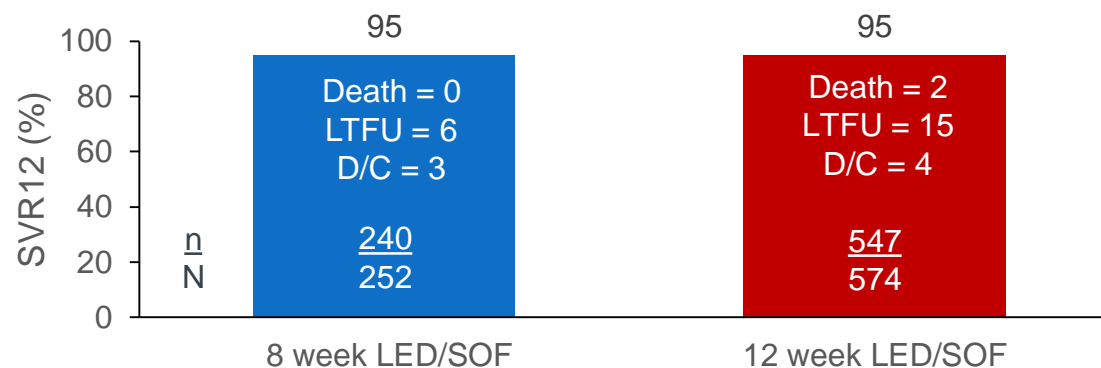
# Nucleotide (sofosbuvir)-based therapies

- GT1 – sofosbuvir/ledipasvir – 8 weeks
- All genotypes – sofosbuvir/velpatasvir – 12 weeks
- (Rescue therapy – sofosbuvir/velpatasvir/voxilaprevir)



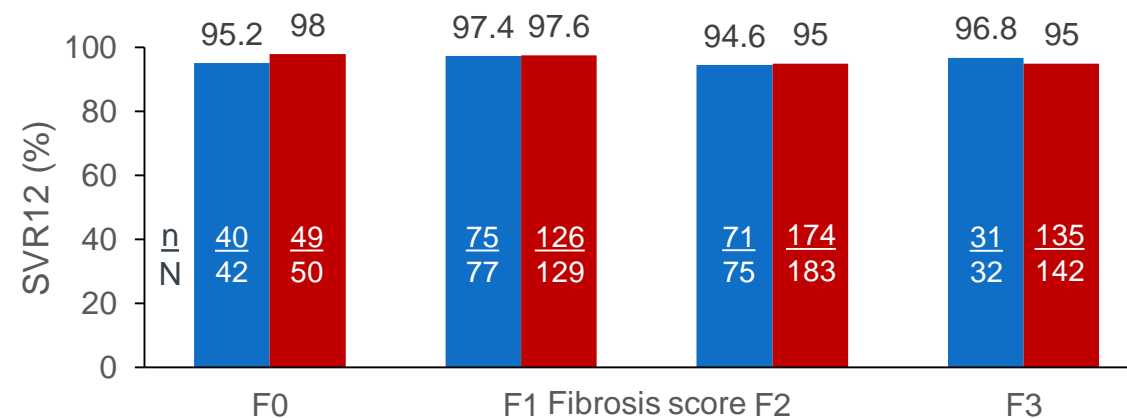
# Effectiveness of 8- or 12-week LED/SOF in treatment-naïve, patients with GT1 HCV

SVR12 by duration



SVR12 by fibrosis

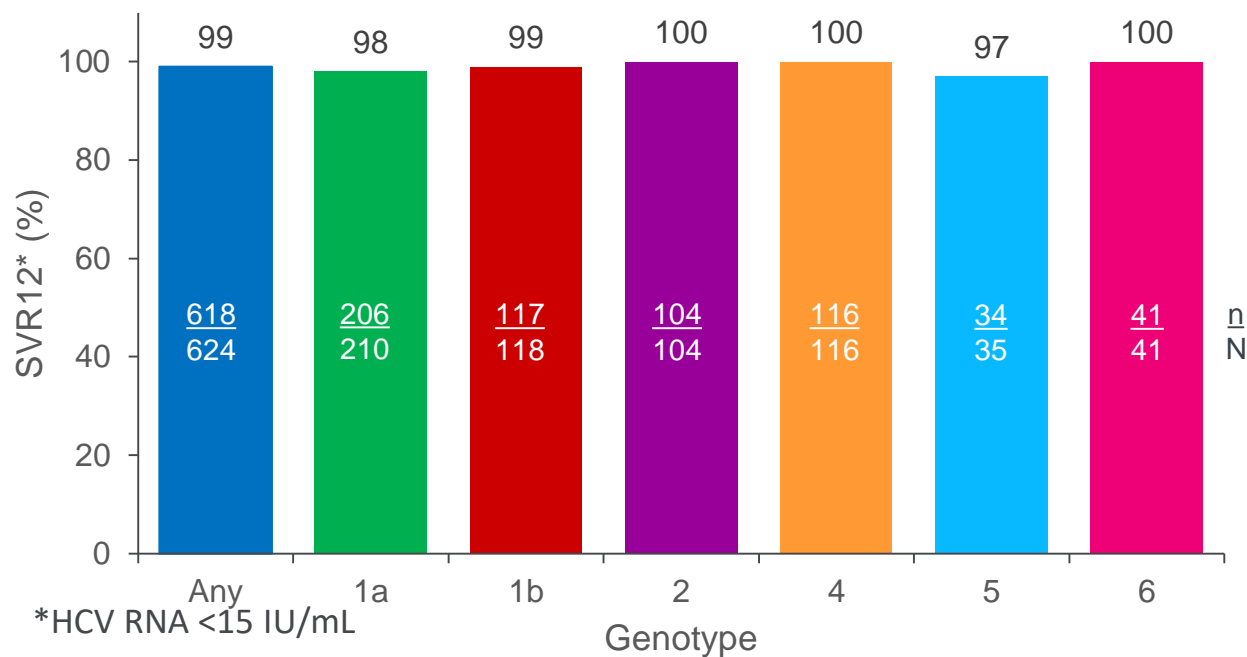
■ 8 week ■ 12 week





# 12-wk SOF/VEL FDC in Tx-naïve and -experienced G1, 2, 4, 5, and 6 patients with and without cirrhosis

ASTRAL-1 study (Phase 3 evaluation)



Virological failure	n (%)
On-treatment failure	0
Post-treatment relapse	2 (<1)
Other reasons for classification as failure to achieve SVR12	n (%)
Lost to follow-up	2 (<1)
Withdrew consent	1 (<1)
Death	1 (<1)

No patients in the placebo group had HCV RNA <15 IU/mL at any timepoint



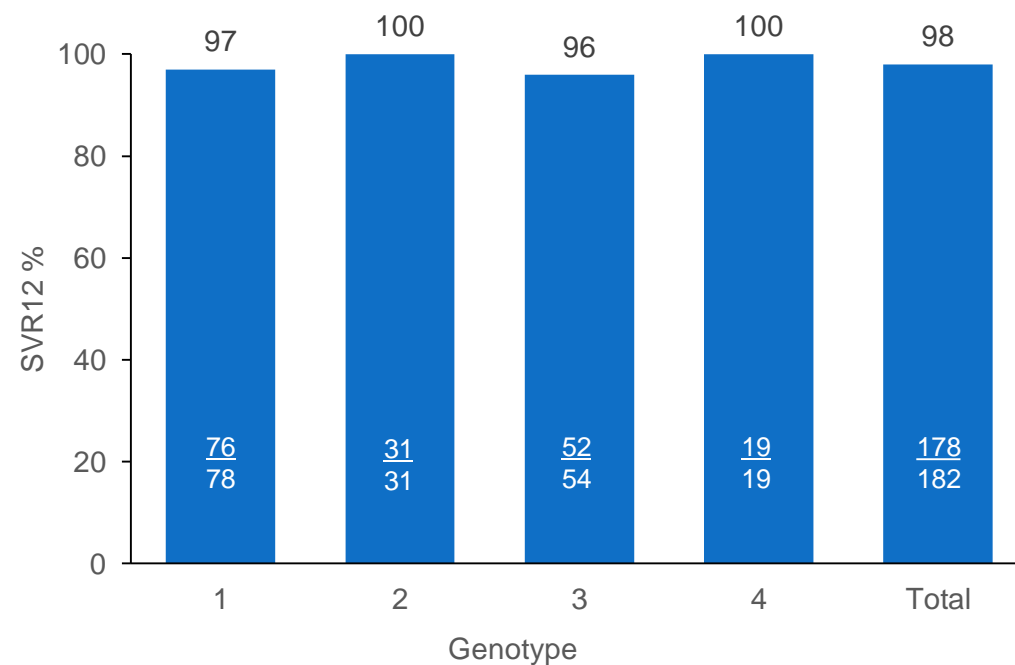
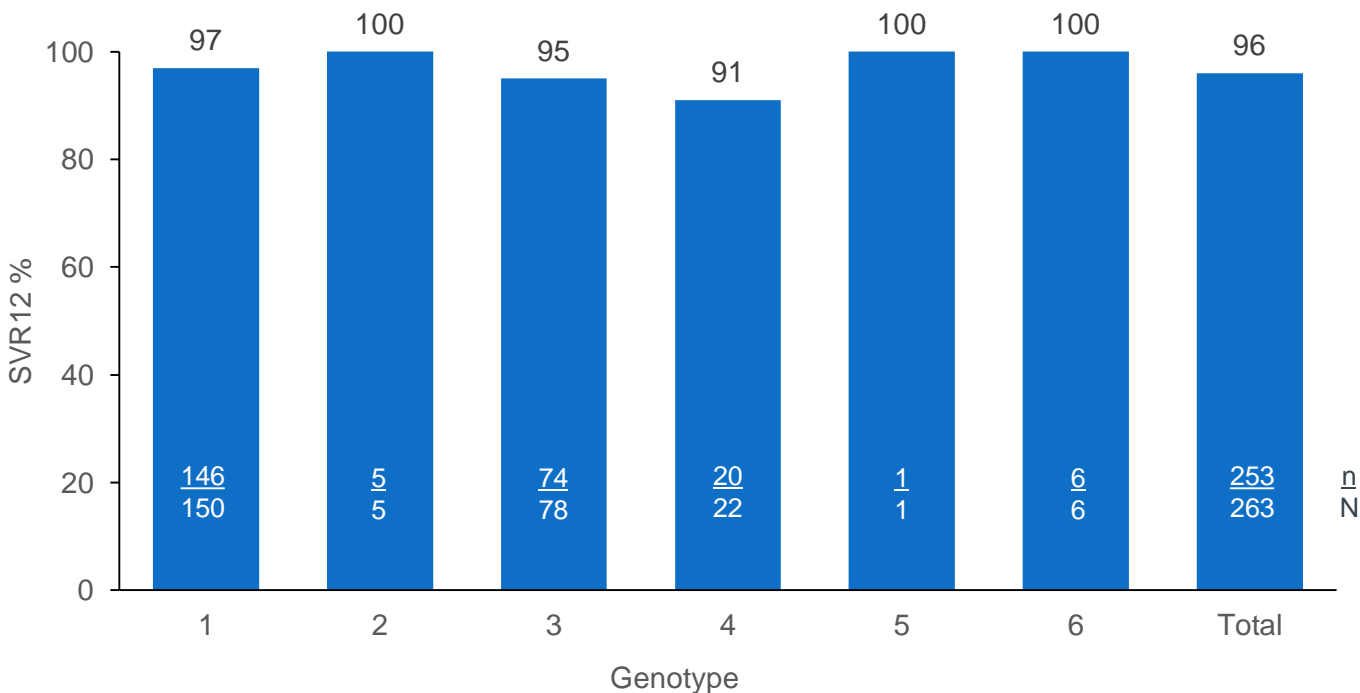


# Rescue therapy: SOF/VEL/VOX

**POLARIS-1**  
DAA-experienced (NS5A inhibitor)

■ SOF/VEL/VOX  
12 weeks

**POLARIS-4**  
DAA-experienced (not NS5A inhibitor)

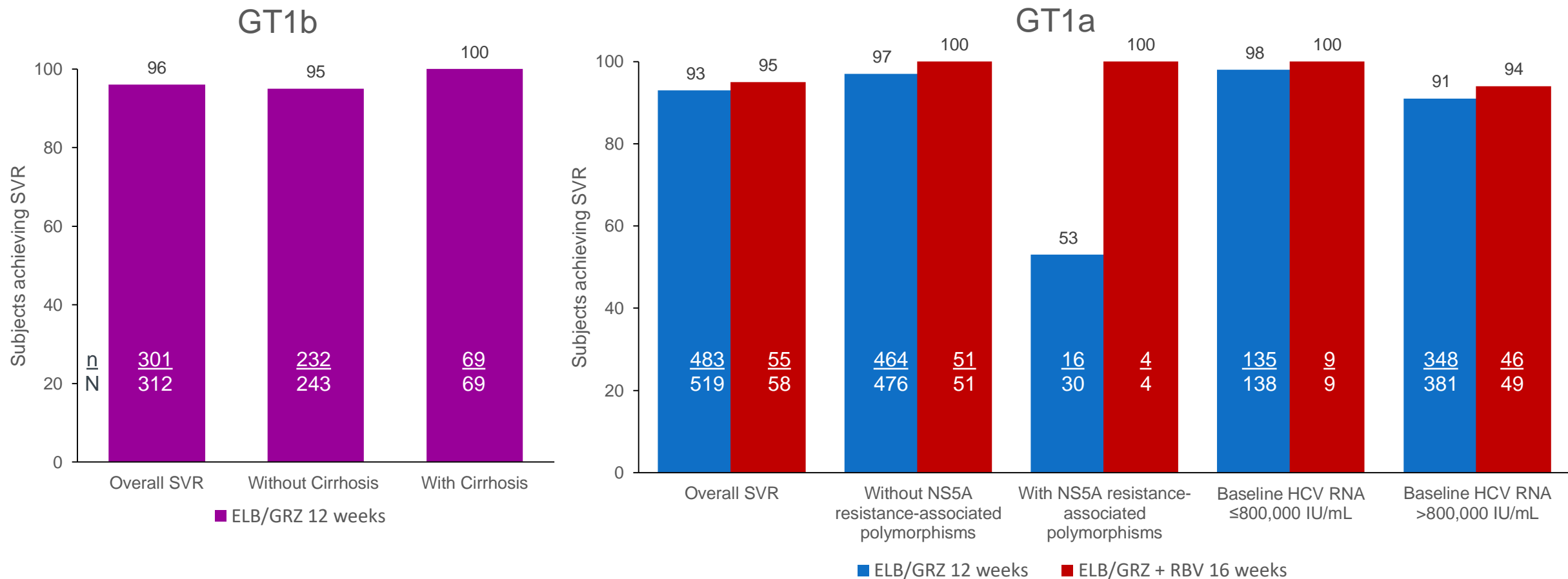


# Protease inhibitor-based therapies

- GT1 – elbasvir/grazoprevir – 8–12 weeks
- All genotypes – glecaprevir/pibrentasvir – 8–16 weeks
- (Rescue therapy – sofosbuvir/velpatasvir/voxilaprevir)

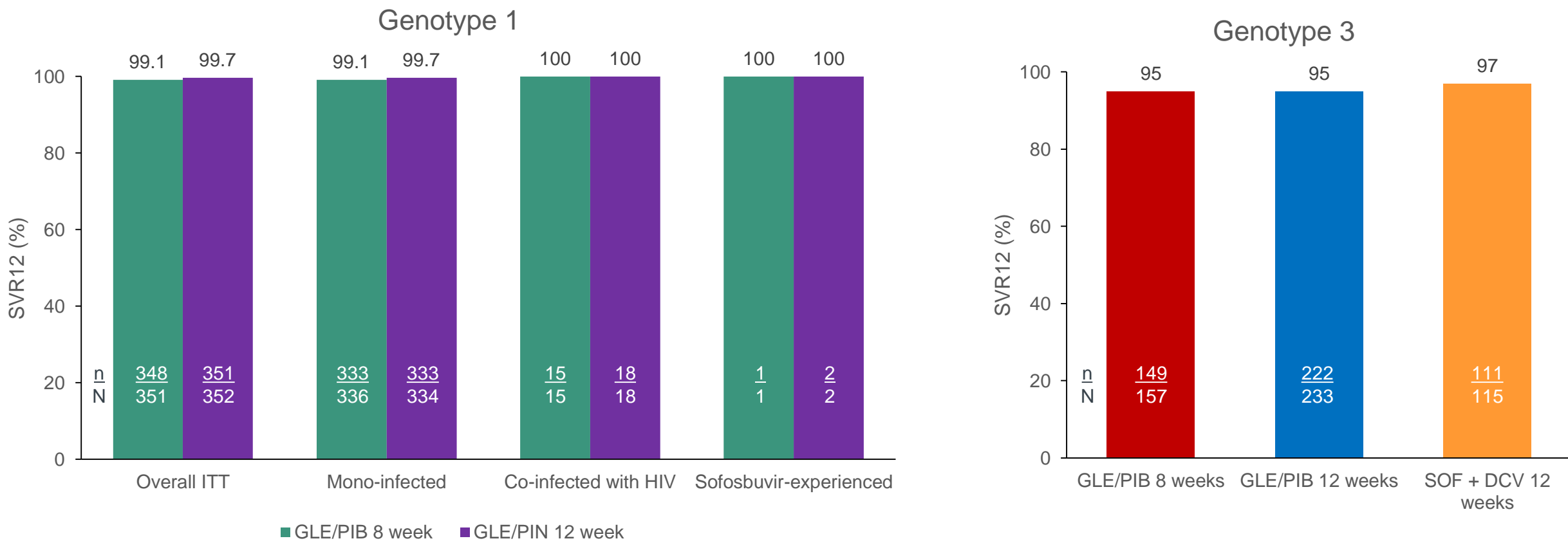


# Elbasvir/grazoprevir Pooled efficacy in HCV-infected patients





# Glecaprevir/pibrentasvir without cirrhosis



## For patients with cirrhosis...

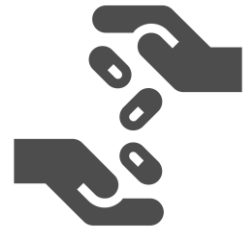
- Use 12 weeks of sofosbuvir/ledipasvir
- Use 12 weeks of glecaprevir/pibrentasvir  
(16 weeks for GT3)
- Avoid protease inhibitors if decompensated

# Treating active injecting drug users A beginners guide

How to use the drugs



## Using the DAAs



**Give tablets to patient**



**Check patient is cured**

# Using the DAAs



**Give tablets to patient**



**Check patient is cured**

## **Pre-treatment**

Check for cirrhosis

Check for drug interactions (anticonvulsants/tuberculosis medication)

## **On treatment**

Help with compliance

## **Post-treatment**

Harm reduction +++



# Treating active injecting drug users A beginners guide

When to ask for help





## When to ask for help

- Decompensated cirrhosis
  - Yellow, big belly, low albumin, low platelets
- If the patient has been treated before
- If the patient has side effects on therapy



# HCV therapy in 2019

- Treatment for HCV is now easy – much easier than the other things you treat!
- Screen your patients at regular intervals
- Work with your local team to set up local guidelines
- Beware of cirrhosis

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**What are you waiting for?**