

## INTRODUCTION

Patients infrequently fail first line hepatitis C therapy. For those who do, second line therapy options include Sofosbuvir/Velpatasvir/Voxilaprevir (S/V/V) and Sofosbuvir/Glecaprevir/Pibrentasvir (S/G/P) (+/- ribavirin (RBV) for difficult-to-cure patients as per EASL 2018 treatment guidelines).

## AIM

We sought to examine the efficacy of treatment with these regimens in patients previously failing NS5a containing regimens

## METHOD

- Patients commencing treatment with S/V/V or S/G/P were identified from the Scottish HCV database
- Baseline data on age, sex, cirrhosis, genotype and prior treatments identified
- Baseline resistance, where available, was recorded from laboratory records
- Testing for NS5a resistance associated substitutions (RAS) was performed using in house population sequencing
- Sustained Viral Response (SVR) was obtained from the database, where available

## RESULTS

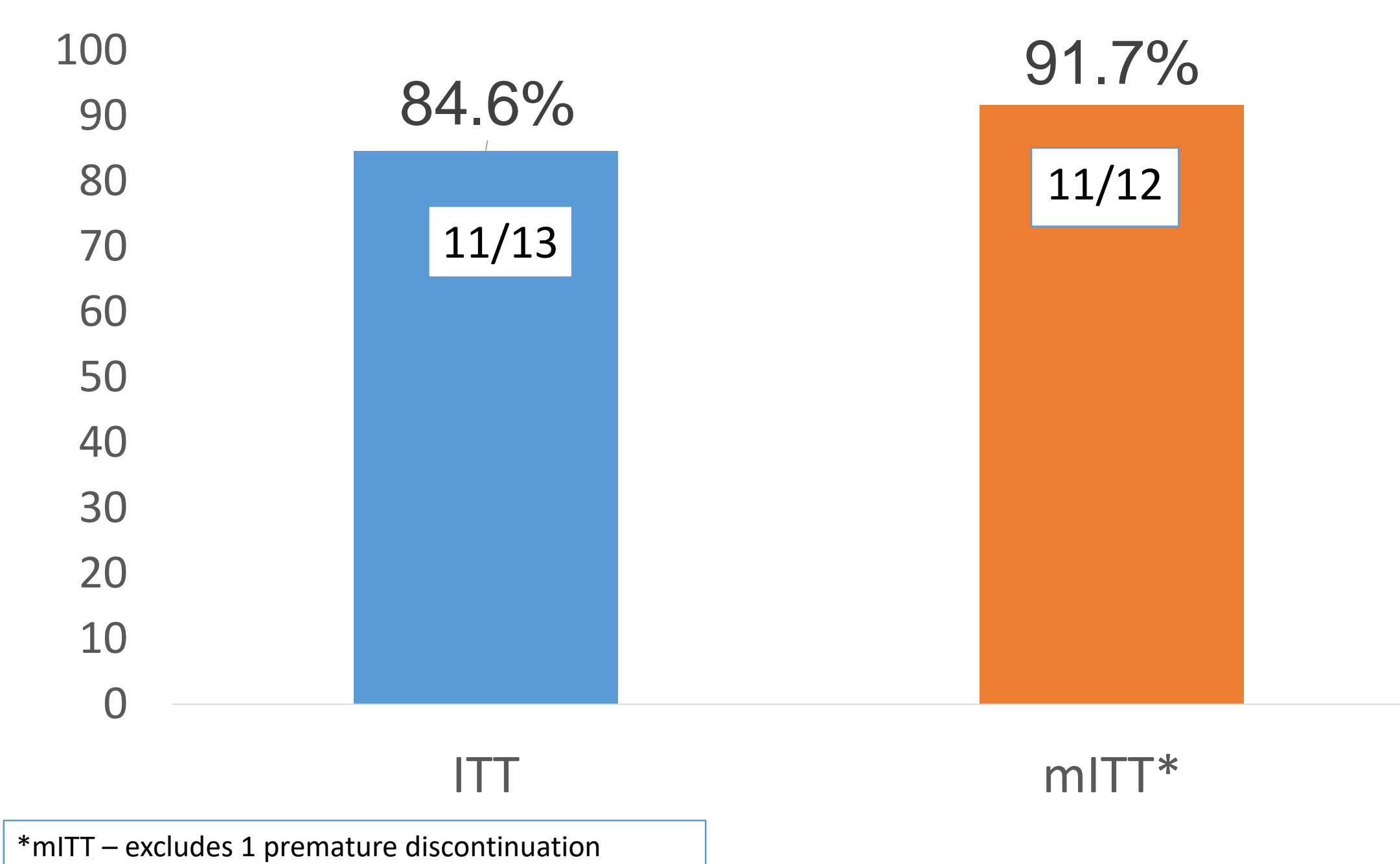
### Baseline characteristics

	N=16
Male (%)	13 (81.3%)
Mean age (± SD)	50.4 (7.5)
Genotype (%)	
1A	9 (56.3%)
3	7 (43.7%)
Cirrhosis (%)	5 (31.3%)
HIV co-infection (%)	3 (18.8%)
Previous OLT (%)	3 (18.8%)
Baseline RASs (%)	11 (68.8%)

Sixteen patients with Ns5a treatment failure were identified, receiving 17 second-line treatments (12 S/V/V, 5 S/G/P). 6 had additionally failed interferon regimens, and 3 non Ns5a containing Sofosbuvir regimens.

### SVR 12

13 patients have attended for SVR 12 bloods. A further 2 patients have achieved an SVR4.



## CONCLUSIONS

- To date, 11/12 prior NS5a failures who completed a prescribed course of S/V/V or S/G/P have achieved SVR 12
- 1 heavily pre-treated patient with cirrhosis in a liver transplant failed S/V/V, but has achieved an SVR4 following a 24 week regimen of S/G/P/RBV
- Both regimens have demonstrated good efficacy in this heavily pre-treated cohort of patients and appear to be well tolerated

### Previous treatment and baseline resistance

Pt	Regimen (12w unless stated)	GT	RBV	Prior failed regimens			NS5A RASs	Outcome	
				IFN	(S)ofosbuvir	NS5A			
1	S/V/V	1a	N	N	N	Graz/EIb/RBV	M28AV Q30R	SVR 12	
2	S/V/V	1a	N	N	N	Graz/EIb	M28A Q30R	EOTR	
3	S/V/V	3	N	Y	N	S/Vel	none	SVR 12	
4	S/V/V	3	Y	N	N	S/Graz/EIb/RBV	Y93H S62T	SVR 12	
5	S/V/V	3	N	N	N	S/Dac/RBV	Y93H	SVR 12	
6	S/V/V	1a	N	N	N	S/IFN/RBV	PrOD/RBV	M28T Q30R	SVR 12
7	S/V/V	3	N	N	N	S/Dac/RBV	Y93H	SVR 12	
8	S/V/V	3	N	Y	N	S/Vel/RBV	none	Premature DC	
9	S/V/V	1a	N	N	N	S/Led	L31M	SVR 12	
10	S/V/V	3	Y	Y	N	S/IFN/RBV	S/Vel/RBV	Y93H	SVR 12
11	S/V/V	3	N	N	N	S/Vel	A30K	SVR 12	
12*	S/V/V	1a	N	Y	N	S/RBV	S/Led/RBV	none	RELAPSE
13	S/G/P	1a	Y	N	N	Graz/EIb	M28A Q30R	SVR 4	
14	S/G/P	1a	N	N	N	S/Led	none	EOTR	
15	S/G/P	1a	N	N	N	S/Led	None	SVR 12	
16	S/G/P	1a	N	Y	N	PrOD	M28V Q30H	SVR 12	
12*	S/G/P (24W)	1a	Y	Y	N	S/Led/RBV S/V/V	none	SVR 4	

\*Same patient retreated

### Treatment failures

To date 2 patients have failed to achieve SVR 12:

- 1 following premature discontinuation of S/V/V due to side effects (diarrhoea and vomiting)
- 1 relapse post S/V/V in a post-transplant GT1A patient with cirrhosis and 3 prior treatment failures.
  - No NS5A RASs were present after treatment failure, however an NS3 mutation (Q80K) was detected.
  - The patient has subsequently completed treatment with S/G/P/RBV for 24 weeks and HCV PCR was undetectable at week 4 post treatment.

## REFERENCES

- 1 European Association for the Study of the Liver. EASL Recommendations on Treatment of Hepatitis C 2018. J Hepatol (2018), <https://doi.org/10.1016/j.jhep.2018.03.026>

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## CONTACT INFORMATION

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