Challenges In Clinical Practice With Hepatocellular Carcinoma (HCC) Screening In Patients With Hepatitis C Virus (HCV) Related Cirrhosis After Antiviral Treatment

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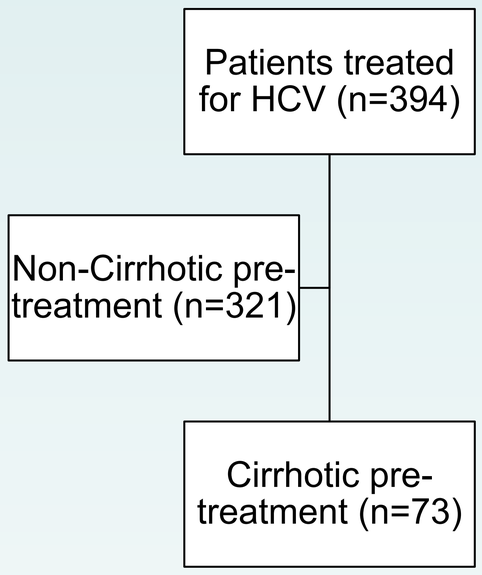
Introduction

- While overall HCC risk significantly reduces after successful HCV treatment, it remains considerable in patients with pre-treatment advanced liver fibrosis or cirrhosis.
- International guidelines recommend HCC screening after treatment.
- This study evaluates the clinical practice challenges in meeting this recommended standard of care prior to Covid-19.

Methodology

- Patients with cirrhosis prior to HCV treatment were identified through a prospectively maintained database from 2012.
- Patients were followed-up until 2019 prior to the Covid-19 pandemic (time period up to 7 years).
- Further data was obtained from the electronic patient record and radiology system.



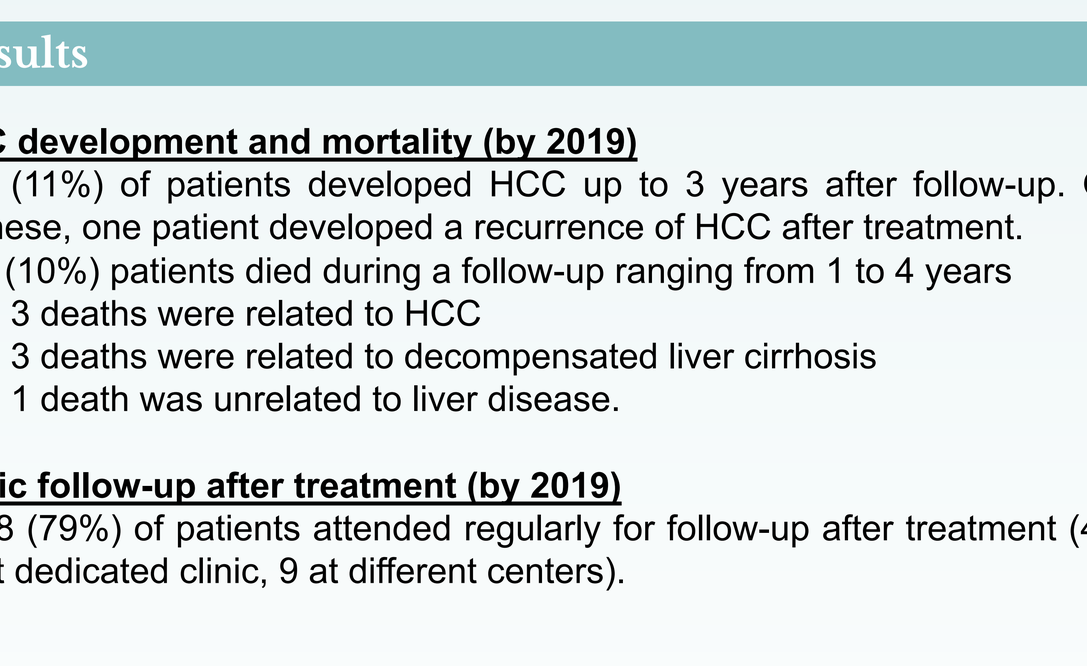
Results

HCC development and mortality (by 2019)

- 8 (11%) of patients developed HCC up to 3 years after follow-up. Of these, one patient developed a recurrence of HCC after treatment.
- 7 (10%) patients died during a follow-up ranging from 1 to 4 years
  - 3 deaths were related to HCC
  - 3 deaths were related to decompensated liver cirrhosis
  - 1 death was unrelated to liver disease.

Clinic follow-up after treatment (by 2019)

- 58 (79%) of patients attended regularly for follow-up after treatment (49 at dedicated clinic, 9 at different centers).

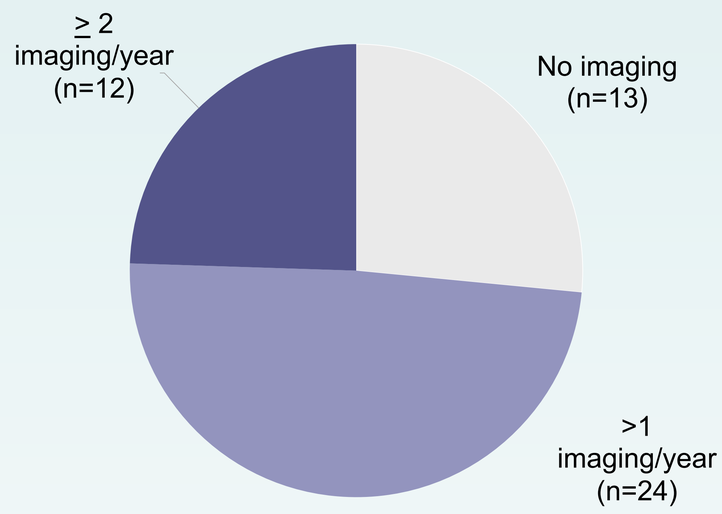


Identifying factors associated with being lost to follow-up

	Total (n)	Lost to Follow-up (n)	Attending OPD (n)	OR	95% CI
Age <50 *(vs ≥ 50 years)*	21	6	15	6.8	(1.23 , 37.66)
Male *(vs Female)*	38	6	32	1.59	(0.29 , 8.77)
IVDU transmission *(vs Blood Product transmission)*	16	4	12	2.17	(0.33 , 14.06)
English not 1st language *(vs English 1st language)*	27	5	22	2.05	(0.44 , 9.52)
Outside Co. Galway *(vs Co. Galway)*	28	5	23	1.88	(0.4 , 8.77)
Outside Galway city *(vs Galway city)*	43	6	37	0.97	(0.17 , 5.48)
Unstable Accommodation	3	0	3	N/A	
Co-morbidities *(vs no other co-morbidities)*	15	3	12	1.85	(0.38 , 8.91)

HCC screening in patients attending OPD in 2019

- Of 49 patients attending the dedicated clinic during a 12 month period, 36 (73.5%) had at least one form of liver imaging.



- 3 patients (6.1%) did not attend for any scheduled imaging appointments. 8 patients did not attend for at least one appointment.
- Overall, there was a 21.7% non-attendance rate for scheduled radiology appointments.

Identifying factors associated with non-attendance at radiology appointments

	Total (n)	Not attending at radiology (n)	Attending at radiology (n)	OR	95% CI
Age <50 (vs ≥ 50 years)	15	3	12	1.7	(0.35 , 8.22)
Male *(vs Female)*	32	4	28	0.46	(0.1 , 2.15)
IVDU transmission *(vs Blood Product transmission)*	12	2	10	0.67	(0.09 , 4.89)
English not 1st language *(vs English 1st language)*	22	4	18	1.28	(0.28 , 5.82)
Outside Co. Galway *(vs Co. Galway)*	23	4	19	1.16	(0.25 , 5.27)
Outside Galway city *(vs Galway city)*	37	7	30	2.57	(0.28 , 23.31)
Unstable Accommodation	3	0	3	N/A	
Co-morbidities *(vs no other co-morbidities)*	12	2	10	1.03	(0.18 , 5.96)

Conclusion

- The clinical practice burden of HCC after successful HCV treatment in cirrhotic patients is significant (11% in this cohort).
- Despite this, some patients do not attend regularly for any follow-up care, while non-attendance for scheduled radiology appointments is common.
- In this cohort younger patients (<50 years) were significantly more likely to stop attending clinic. Not having English as a 1st language may also be a factor of non-compliance.
- Living far from our center was not a significant factor which may reflect that some patient followed up at their local center.
- Further work should be done to identify what individuals are vulnerable not to be following-up.