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INTRODUCTION

HepCARE is an end to end viral hepatitis (HBV and HCV) patient management tool. HepCARE enables simple, automated, rapid identification and analysis of patient cohorts and provides a single system for the management of patients during outpatient clinic visits.

HepCARE can also assist in the provision of outreach services for the treatment of HBV and HCV, through the analysis of local geographical data.

AIM

To introduce a fully integrated viral hepatitis management system which would allow rapid identification of new diagnoses of HBV and/or HCV and provide automatic reporting. This would improve delivery of care and subsequent patient outcomes, whilst fulfilling all mandated data reporting requirements set out by NHS England.

METHOD

- All patients with a HCV antibody/RNA or positive HBV Surface antigen/DNA titres were identified through laboratory results to create the initial database. Relevant demographics and laboratory test results were then extracted and uploaded to HepCARE.
- New patient diagnoses of HBV and/or HCV are instantaneously transmitted to HepCARE from the hospitals electronic patient records.
- In parallel, transient elastography (Fibroscan), CAP score and clinically relevant laboratory results transfer electronically to HepCARE. APRI and FIB-4 scores are automatically calculated.

Figure 1		
нсу	RNA (IU/mL	
10^10		
10^9		
10^8		
10^7		
10^8		
10^5		
10^4		
10^3		
10^2		
10^1		
1		
10^-1		
10^-2		
10^-3	n lan	
0	8 09	
Anti-HCV Positive (2	0-Feb-2015)	

METAVIR fibrosis score F4 = Cirrhosis (18-Sep-2015 0.389 (14-Sep-2017

04-Dec-2015	18-Dec-2
158	150
5.67	6.24
140	202
1.08	1.17
141	141
4.1	4.4
6	6.7
76	81
89	82
14	19
61	35
140	113
41	41



HepCARE has collated data on 9816 patients with Viral Hepatitis attending Liver Services at our centre.

HCV treatment outcomes of direct-acting antiviral therapy of 1129 patients have been automatically sent to NHS England. 387 patients who have underlying cirrhosis have been identified for ongoing hepatocellular carcinoma surveillance and long term follow-up.

1380 individuals with untreated HCV infection (determined by detectable HCV RNA) have been identified, of which 18 are also HBsAg positive. Of these, 294 have cirrhosis based on FIB-4 and/or Fibroscan data.

HepCARE has allowed rapid re-engagement of patients who may have disengaged from the service, ensuring prompt linkage to care and treatment.

342 new HCV diagnoses have been identified in real time over a one year period - all relevant clinical and demographic data on these patients is imported into HepCARE. This ensures prompt assessment, engagement and commencement of antiviral therapy. This allows long term outcomes to be measured to ensure compliance with national and international guidelines.

HepCARE: A tool enabling the identification, assessment and management of viral hepatitis. An integrated approach to the patient journey

B. Anthony¹, L. Smith¹, P. Troke², K. Childs¹, F. Sinan¹, G. Dusheiko¹, K. Agarwal¹ and M. Cannon¹ 1Institute of Liver Studies, Kings College Hospital, London 2Gilead Sciences Ltd, London





CONCLUSIONS

- The use of HepCARE has reformed clinical management of patients with viral hepatitis at our centre, and has enabled large-scale patient re-engagement. Our results validate the previous findings on the use of HepCARE in other healthcare settings¹.
- HepCARE has facilitated the development of paperless clinics and eliminated duplication of work through automated outcome reporting to the NHS England Hepatitis C National Registry.
- In-depth analysis of the patient cohort attending the viral hepatitis service is now possible at our centre, with over 150 individual laboratory test results recorded in real time (Figure
- Demographic data enables the geographic mapping of HCV prevalence and previous use of DAA therapy (Figure 2). This assists with case finding and allows us to address inequalities in access to DAA therapy within our local community. This will enable effective prioritisation of resource.
- The linkage of patient data from primary care to HepCARE will assist with case finding within our local communities.

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REFERENCES

¹Kok B, Allen S, Greenhill K, Troke P, Clements A, Cramp M. Utilisation of the HepCARE viral hepatitis database in clinical practice identifies and simplifies management of patients requiring and receiving antiviral therapy and enables rapid, automated, treatment outcome reporting [abstract]. In: British Association for the Study of the Liver Annual Meeting; 2016 Sept 7-9; Manchester, United Kingdom. London; 2016. Abstract nr 30.

CONTACT INFORMATION

For further information please contact Ben Anthony on: benanthony@nhs.net.