**Supplementary information**

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Appendix Table 6. Univariate analysis of factors (race and insurance type) associated with receiving at least one claim for liver imaging within 12 months of CHB diagnosis among women > 50 years without cirrhosis.

Appendix Table 7. Proportion of CHB patients with cirrhosis and without cirrhosis who received HBV antiviral therapy within 12 months of diagnosis by race.

Appendix Table 8. Analysis of factors associated with retention in treatment 13-24 months after the first diagnosis date among those who received treatment within 12 months and in continuous enrollment at least 24 months after the first diagnosis date.

**Appendix Table 1. ICD 9/10 Codes**

|  |  |  |
| --- | --- | --- |
|  | ICD 9/10 Codes | Code Description |
| CHB | B18.1  B18.0  B19.10  Z22.51  V02.61  070.32  070.33  070.22  070.2 | CHB without HDV  CHB with HDV  Unspecified viral hepatitis B without hepatic coma  Carrier of viral hepatitis B  Carrier of viral hepatitis B  CHB without mention of hepatic coma or hepatitis delta  CHB without mention of hepatic coma with hepatitis delta  CHB with hepatic coma without hepatitis delta  CHB with hepatic coma with hepatitis delta |
| HCV | B18.2  B19.20  Z22.52  070.44  070.54 | Chronic viral hepatitis C  Unspecific viral hepatitis C without hepatic coma  Carrier of viral hepatitis C  Chronic hepatitis C with hepatic coma  Chronic hepatitis C without mention of hepatic coma |
| HIV | B20  B97.35  Z21  042  079.53  795.71  V08 | Human immunodeficiency virus [HIV] disease  Human immunodeficiency virus, type 2 [HIV 2] as the cause of diseases classified elsewhere  Asymptomatic human immunodeficiency virus [HIV] infection status  Human immunodeficiency virus [HIV] disease  Human immunodeficiency virus, type 2 [HIV-2]  Nonspecific serologic evidence of human immunodeficiency virus [HIV]  Asymptomatic human immunodeficiency virus [HIV] infection status |
| HCC | C22.0  C22.7  C22.8  155.0 | Liver cell carcinoma  Other specific carcinomas of liver  Malignant neoplasm of liver, primary  Malignant neoplasm of liver, primary |
| Cirrhosis | K74  K74.6  K74.60  K74.69  K70.3  K70.30  K70.31  K71.7  571  571.2  571.5 | Fibrosis and cirrhosis of liver  Other and unspecified cirrhosis of liver  Unspecified cirrhosis of liver  Other cirrhosis of liver  Alcoholic cirrhosis of liver  Alcoholic cirrhosis of liver without ascites  Alcoholic cirrhosis of liver with ascites  Toxic liver disease with fibrosis and cirrhosis of liver  Chronic liver disease and cirrhosis  Alcoholic cirrhosis of the liver  Cirrhosis of liver without mention of alcohol |
| Liver transplant | Z94.4/V42.7  Z48.23  T86.4/T86.40/T86.41/  T86.42/T86.43/T86.49/  996.82 | History of liver transplant  Encounter for aftercare following liver transplant  Liver transplant complications |

**Appendix Table 2. CPT codes**

|  |  |  |
| --- | --- | --- |
|  | CTP Codes | Code Description |
| ALT | 80076  84460  80053 | Hepatic function panel  ALT  Comprehensive metabolic panel (CMP) |
| HBV DNA | 87515  87516  87517 | HBV detection by nucleic acid by direct probe  HBV DNA, Qualitative, Real-Time PCR  HBV DNA, Quantitative, Real-Time PCR |
| HBeAg | 87350 | Hepatitis B e Antigen |
| Ultrasound | 76700  76705 | Complete abdominal ultrasound  Limited abdominal ultrasound |
| CT scan | 74150/74160/74170  74176/74177/74188 | Abdomen without and/or with contrast  Abdomen + pelvis without and/or with contrast |
| MRI scan | 74181/74183 | Liver depending on contrast |

**Appendix Table 3. HBV antiviral medications**

|  |  |  |
| --- | --- | --- |
| HBV antivirals | Brand and generic names | Tenofovir/tenofovir disoproxil fumarate/Viread/ Tenofovir alafenamide/Vemlidy  Entecavir/ Baraclude  Lamivudine/Epivir-HBV/Epivir  Adefovir/Hepsera  telbivudine/Tyzeka  Emtricitabine/ Emtriva  Emtricitabine and tenofovir disoproxil fumarate/Biktarvy/Truvada  Emtricitabine and tenofovir alafenamide/Descovy  Pegylated interferon alpha-2a/Pegasys/Pegasys-P  Interferon alfa-2b/Intron A  Pegylated interferon alpha-2b/Peg-Intron |

**Appendix Table 4. Univariable analysis of factors associated with receiving at least one claim for liver imaging within 12 months of CHB diagnosis among patients with cirrhosis (n=396)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | Categories | Number (%) | Univariable analysis | |
| Odds Ratio, (95% CI) | P |
| Age (years) | 18-44 | 28  (77.8%) | (Ref) |  |
| 45-64 | 106  (84.8%) | 1.59 (0.63-4.0) | 0.321 |
| > 65 | 192  (81.7%) | 1.27 (0.54-3.0) | 0.58 |
| Sex | Male | 202  (84.9%) |  |  |
| Female | 123  (78.3%) | 0.64 (0.38-1.08) | 0.10 |
| Race | Asian | 198  (85.1%) | (Ref) |  |
| White | 140 (83.8%) | 0.91 (0.47-1.76) | 0.77 |
| Black | 41  (77.4%) | 0.60 (0.26-1.37) | 0.22 |
| Hispanic | 42  (77.8%) | 0.61 (0.27-1.40) | 0.24 |
| Insurance types | Commercial | 113  (83.1%) | (Ref) |  |
| Medicare | 191 (80.2%) | 0.83 (0.48-1.43) | 0.50 |
| Both | 22  (100%) | NA |  |

**Appendix Table 5. Univariable analysis of factors (race and insurance types) associated with receiving at least one claim for liver imaging within 12 months of CHB diagnosis among men > 40 years without cirrhosis.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | Categories | Number (%) | Univariable analysis | |
| Odds Ratio, (95% CI) | P |
| Race | Asian | 621/1071  (58.0%) | (Ref) |  |
| White | 312/709 (44.0%) | 0.57 (0.47-1.76) | <0.01 |
| Black | 132/258  (51.2%) | 0.76 (0.26-1.37) | 0.05 |
| Hispanic | 92/223  (41.3%) | 0.51 (0.27-1.40) | <0.01 |
| Insurance types | Commercial | 628  (52.0%) | (Ref) |  |
| Medicare | 516 (50.7%) | 0.94 (0.80-1.12) | 0.53 |
| Both | 42  (46.7%) | 0.81 (0.53-1.24) | 0.33 |

**Appendix Table 6. Univariable analysis of factors (race and insurance type) associated with receiving at least one liver imaging within 12 months of CHB diagnosis among women > 50 years without cirrhosis.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Characteristics | Categories | Number (%) | Univariable analysis | |
| Odds Ratio, (95% CI) | P |
| Race | Asian | 427/727  (58.7%) | (Ref) |  |
| White | 298/677 (44.0%) | 0.55 (0.45-0.68) | <0.01 |
| Black | 97/214  (45.3%) | 0.58 (0.43-0.79) | 0.01 |
| Hispanic | 86/190  (45.3%) | 0.58 (0.42-0.80) | 0.01 |
| Insurance types | Commercial | 295  (49.7%) | (Ref) |  |
| Medicare | 574 (49.9%) | 1.01 (0.83-1.23) | 0.92 |
| Both | 59  (51.8%) | 1.09 (0.73-1.62) | 0.68 |

**Appendix Table 7. Proportion of CHB patients with cirrhosis and without cirrhosis who received HBV antiviral therapy within 12 months of diagnosis by race.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | CHB patients with cirrhosis | CHB patients without cirrhosis | CHB patients with and without cirrhosis |
| Asian | 43  (37.7%) | 327  (12.8%) | 370  (13.8%) |
| White | 45  (27.0%) | 160  (9.3%) | 205  (10.9%) |
| Black | 18  (33.9%) | 55  (8.7%) | 73  (10.7%) |
| Hispanic | 6  (11.1%) | 30  (5.9%) | 36  (6.5%%) |
| All races | 114  (28.8%) | 595  (10.7%) | 709  (11.9%) |

**Appendix Table 8. Analysis of factors associated with retention in treatment 13-24 months after the first diagnosis date among those who received treatment within 12 months and in continuous enrollment at least 24 months after the first diagnosis date.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Characteristics | Categories | Number (%) | Univariable analysis | | Multivariable analysis | |
| Odds Ratio, (95% CI) | P | Adjusted Odds Ratio, (95% CI) | p |
| Age (years) | 18-44 | 80  (69.6%) | (Ref) |  | (Ref) |  |
| 45-64 | 150  (80.7%) | 1.82 (1.06-3.12) | 0.03 | 2.11 (1.19-3.74) | 0.01 |
| > 65 | 154  (77.8%) | 1.53 (0.91-2.57) | 0.11 | 1.69 (0.98-2.91) | 0.06 |
| Sex | Male | 222  (78.5%) | (Ref) |  |  |  |
| Female | 161  (74.9%) | 0.82 (0.54-1.25) | 0.35 |  |  |
| Race | Asian | 215  (81.6%) | (Ref) |  | (Ref) |  |
| White | 104  (72.7%) | 0.59 (0.37-0.97) | 0.04 | 0.58 (0.35-0.94) | 0.03 |
| Black | 37  (69.8%) | 0.52 (0.27-1.00) | 0.05 | 0.47 (0.24-0.93) | 0.03 |
| Hispanic | 18  (78.3%) | 0.80 (0.28-2.27) | 0.68 | 0.68 (0.24-1.96) | 0.48 |
| Insurance types | Commercial | 220  (76.4%) | (Ref) |  |  |  |
| Medicare | 149  (76.8%) | 1.02 (0.67-1.57) | 0.92 |  |  |
| Both | 15  (88.2%) | 2.31 (0.52-10.39) | 0.27 |  |  |
| Cirrhosis | No | 319  (76.5%) | (Ref) |  |  |  |
| Yes | 65  (79.3%) | 1.17 (0.66-2.10) | 0.54 |  |  |