

Increases in HCV Hospital Liver-Related Admissions, Charges, Days-in-Hospital: aged 50-59 demonstrated the largest increases between 2002 and 2010 in the number of liver-related admissions (164%), liver-related hospital days (133%), and liver-related hospital charges (341%), Patients Aged 60+ Had 2nd Largest Increases.....ages 20-29 too

Reported by Jules Levin, NATAP, www.natap.org
AASLD 2013 Nov 1-4, Wash DC

“Trends in Liver-Related Healthcare Resource Utilization for HCV-Infected Individuals in the US: 2002-2010”

Trends in Liver-Related Healthcare Resource Utilization for HCV-Infected Individuals in the US: 2002–2010

Simpson KN,¹ Simpson A,¹ Cline SK,² Gooch K²

¹Medical University of South Carolina, Charleston, SC; ²AbbVie Inc., North Chicago, IL

PROGRAM ABSTRACT:

Background: Increases in healthcare utilization related to liver complications among HCV patients have occurred between 1994 and 2001, particularly among individuals aged 40 to 60 years. Average annual percentage growth rates of total HCV liver-related charges during this period approached 30% and 40% for individuals aged 40-49 and 50-59, respectively. The risk of disease progression, combined with relatively low cure rates over the past decade, has potentially resulted in continued growth of the large HCV-related economic burden, as HCV leads to costly liver disease and other morbidity. The objective of this study was to examine trends in HCV liver-related healthcare utilization between 2002 and 2010 in the US.

Methods: Years 2002-2010 of the National Inpatient Sample (NIS) data set of hospital admissions from the Healthcare Cost and Utilization Project (HCUP) were analyzed in order to determine the number of adult (age 20+ years) liver-related hospital admissions occurring to HCV-infected patients (identified by ICD-9 codes).

These data included a total of 71.7 million hospital admissions from 1,051 US hospitals. The number of liver-related admissions occurring to HCV-infected patients and non-infected patients was recorded for each year, as well as total hospital days and total charges. Trends over time were compared for each age group.

Results:

Of the 71 million admissions examined over the study period, there were a total of 1,434,226 admissions for HCV-infected adult patients with liver-related diagnoses.

Patients aged 50-59 demonstrated the largest increases between 2002 and 2010 in the number of liver-related admissions (164%), liver-related hospital days (133%), and liver-related hospital charges (341%).

Patients aged 60+ had the second largest increases in liver-related hospital days and charges (89% and 300%, respectively), and patients aged 20-29 had the second largest increase in liver-related admissions (131%).

Liver-related admissions, hospital days and charges did not increase between 2002 and 2010 among patients who were not infected by HCV.

Conclusions:

(1) These results suggest that HCV-infected individuals aged 50-59 continue to account for the largest increases in liver-related hospital admissions and costs.

(2) However, in contrast to previous research, in these analyses, individuals aged 60+ had the second highest increase in liver-related costs, which may be reflective of an aging HCV cohort.

CONCLUSIONS

- Trends in hospital admission, hospital days, and hospital charges for HCV patients with liver-related diagnoses continued to show the greatest increases for patients aged 50-59
 - In contrast to previous research, these analyses indicated that individuals aged 60+ had the second highest increase in liver-related costs
- HCV-related hospital charges showed the greatest increase among the 50-59 age group (341%), followed by those aged 60+ (300%; Figure 3)
 - Liver-related admissions, hospital days, and charges did not increase between 2002 and 2010 among patients who were not infected by HCV

BACKGROUND

- Hepatitis C virus (HCV) is a progressive disease causing costly liver disease and other morbidity^{1,2}
- In the US, increases in healthcare utilization related to liver complications among HCV patients have occurred between 1994 and 2001, particularly among individuals aged 40 to 60 years³
- Average annual percentage growth rates of total HCV liver-related charges during this period approached 30% and 40% for individuals aged 40-49 and 50-59, respectively³
- The risk of HCV disease progression, combined with relatively low cure rates over the past decade, has contributed to the continued growth of the large HCV-related economic burden as the infected population ages^{4,5}

OBJECTIVE

- The objective of this study was to identify trends in healthcare utilization for liver complications among HCV patients between 1994–2001 in the US by examining patterns in HCV liver-related hospital admissions between 2002 and 2010

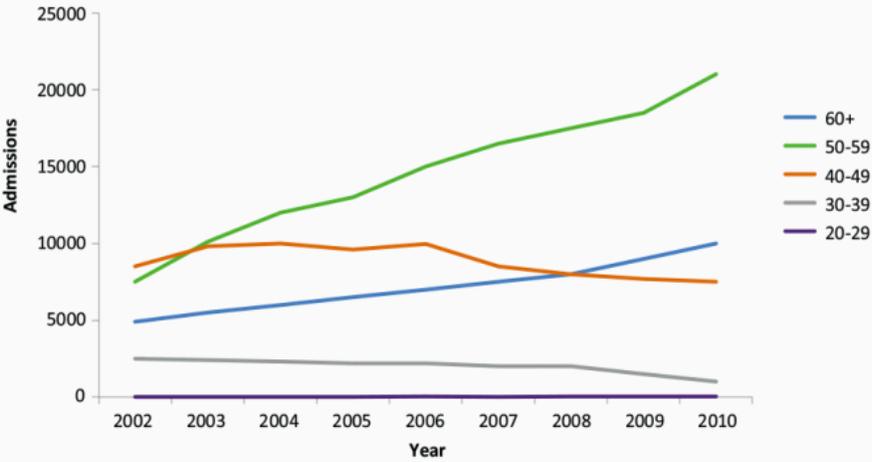
METHODS

- Years 2002–2010 of the National Inpatient Sample (NIS) data set of hospital admissions from the Healthcare Cost and Utilization Project (HCUP) were analyzed to determine the number of adult (age 20+ years) liver-related hospital admissions occurring among HCV-infected patients
 - HCV International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes 070 with decimals .41, .44, .51, .54 or V02.62
 - Liver ICD-9 diagnosis codes 570-573, 155, 456.2 789.1, 789.5, 996.82 or V42.7 or ICD-9 procedure codes 50.2-50.9
- These data included a total of 71.7 million hospital admissions from 1,051 US hospitals
- The number of liver-related admissions occurring among HCV-infected patients and non-infected patients was recorded for each year, as well as total hospital days and total charges, with a focus on the distribution of HCV healthcare resource utilization across age groups
- Trends over time were compared for each age group

RESULTS

- Of the 71.7 million admissions examined over the study period, 1.4 million were for HCV-infected adult patients with liver-related diagnoses
- The number of admissions for HCV-infected adult patients with liver-related diagnoses showed an upward trend
- The greatest increase in number of HCV-related admissions was in the 50-59 age group (164%), followed by 20-29 (131%; Figure 1)

Figure 1: Liver-related HCV hospital admissions by age group, 2002–2010



- Number of hospital days associated with HCV increased the most in those aged 50-59 (133%), followed by the 60+ age group (89%; Figure 2)

Figure 2: Liver-related HCV hospital days by age group, 2002–2010

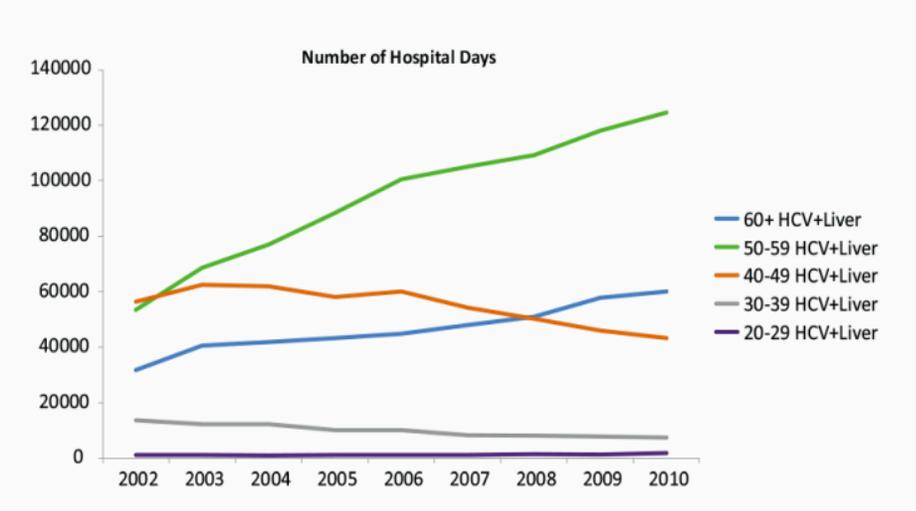
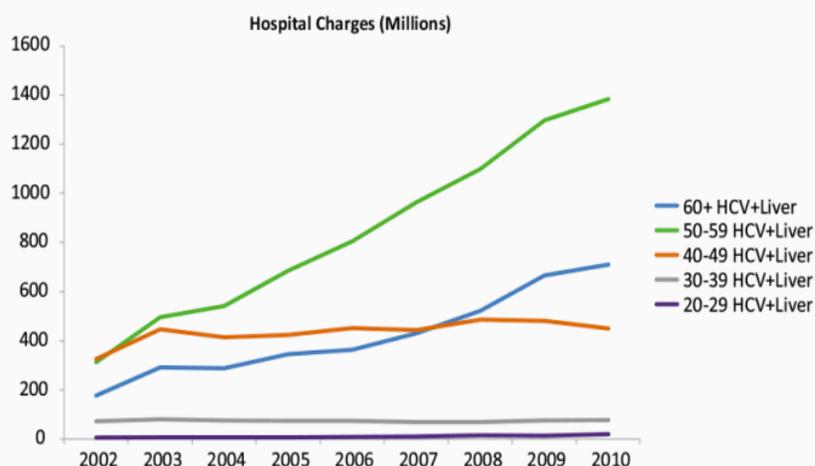


Figure 3: Liver-related HCV hospital charges by age group, 2002–2010



REFERENCES

1. Gordon SC, et al. Impact of disease severity on healthcare costs in patients with chronic hepatitis C (CHC) virus infection. *Hepatology* 2012;56:1651-1660
2. El Khoury AC, et al. Economic burden of hepatitis C-associated diseases in the United States. *J Viral Hepat* 2012;19:153-160
3. Grant WC, et al. Trends in health care resource use for hepatitis C virus infection in the United States. *Hepatology* 2005;42:1406-1413
4. Razavi H, et al. Chronic hepatitis C virus (HCV) disease burden and cost in the United States. *Hepatology* 2013;57:2164-2170
5. Davis GL, et al. Aging of hepatitis C virus (HCV)-infected persons in the United States: a multiple cohort model of HCV prevalence and disease progression. *Gastroenterology* 2010;138:513-521