

Perceptions of Moderate to High Risk Factors for Developing Primary Overt Hepatic Encephalopathy Across Physician Specialties In the United States

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BACKGROUND

- Health care burden associated with liver disease in the US is significant from both a societal and health economic perspective
- The prevalence of cirrhosis in the United States is approximately 0.27%, corresponding to 697,176 adults in 2021 [1]
- Overt hepatic encephalopathy (OHE) is a common complication of decompensated liver disease that frequently leads to hospitalization, occurring in an estimated 21.4% of patients with cirrhosis [2]
- To manage OHE, it is imperative to identify risk factors for developing OHE (i.e., alcoholic hepatitis, hepatorenal syndrome, refractory ascites) [3]
- However, there is a lack of information on physicians' perception of risk factors for developing OHE among patients with cirrhosis

OBJECTIVE

- To better understand physicians' perspectives on the moderate to high risk factors for developing a primary OHE event among patients with cirrhosis in the US

METHODS

- An online survey was administered January 2022 - May 2022 to collect information on physicians' perceptions of moderate to high risk factors for primary OHE
- Eligible physicians (based on physicians' self-identified specialty) were US-based hepatologists, gastroenterologists (GIs), internists (IMs), and family medicine physicians (general practitioners [GPs]), responsible for the management of at least 20 adult patients with cirrhosis in the year prior to the survey administration
- Moderate to high risk factors were defined as those with a $\geq 20\%$ risk of developing a primary OHE event within one year, as reported by physicians
- Analyses were stratified among patients with Child-Pugh A (CPA), Child-Pugh B (CPB), and Child-Pugh C (CPC) cirrhosis

RESULTS

SAMPLE

- A total of **300 physicians** completed the survey, including 99 hepatologists, 61 GIs, 106 IMs, and 34 GPs

Figure 1. Physician self-reported practice type and annual number of cirrhosis patients followed

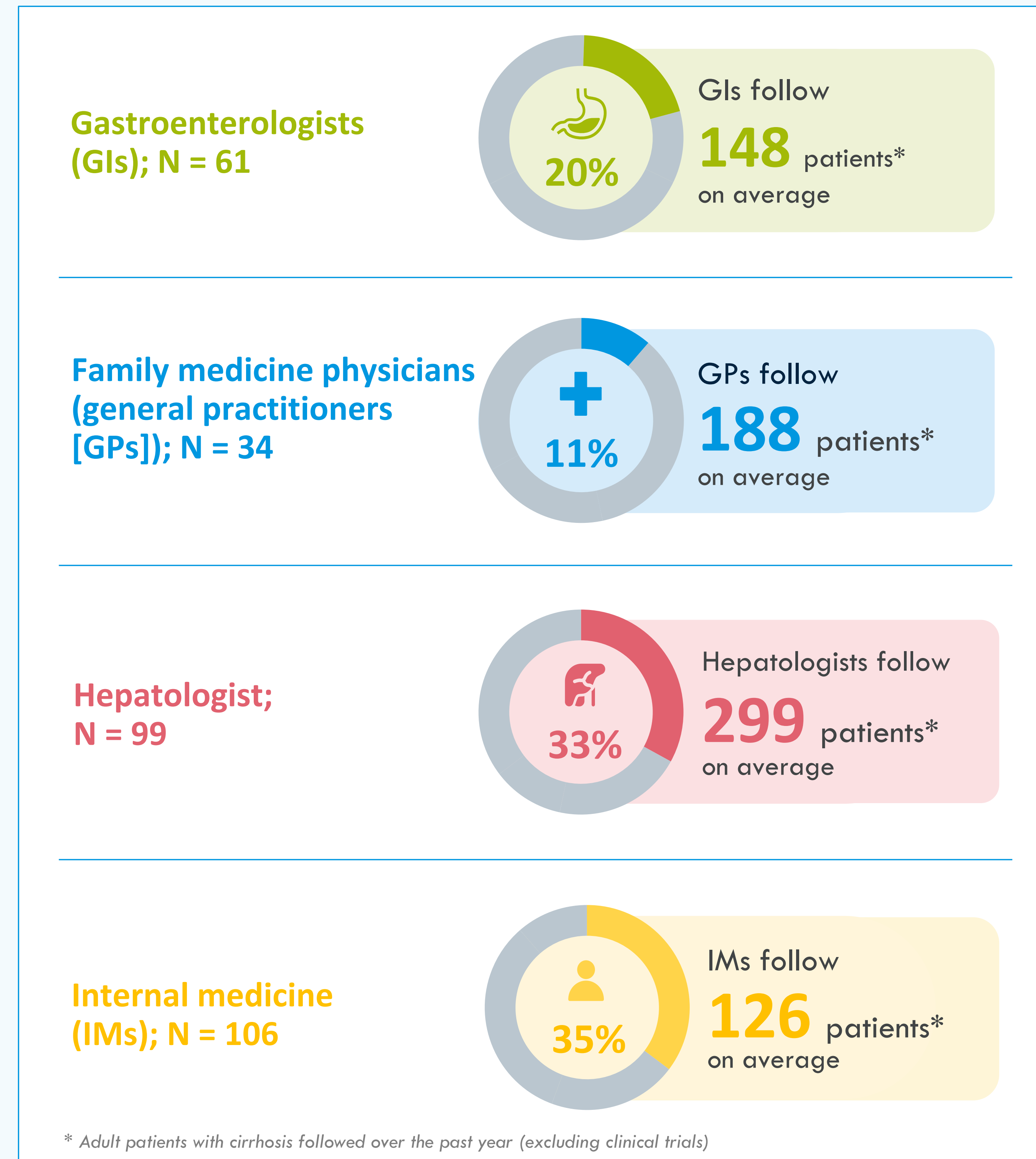
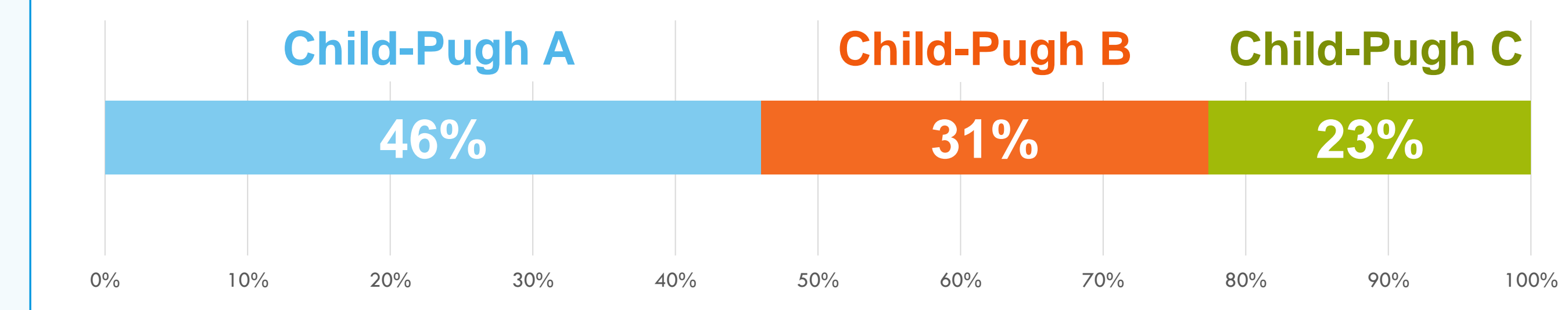


Figure 2. Patients with cirrhosis who have never had OHE by Child-Pugh class

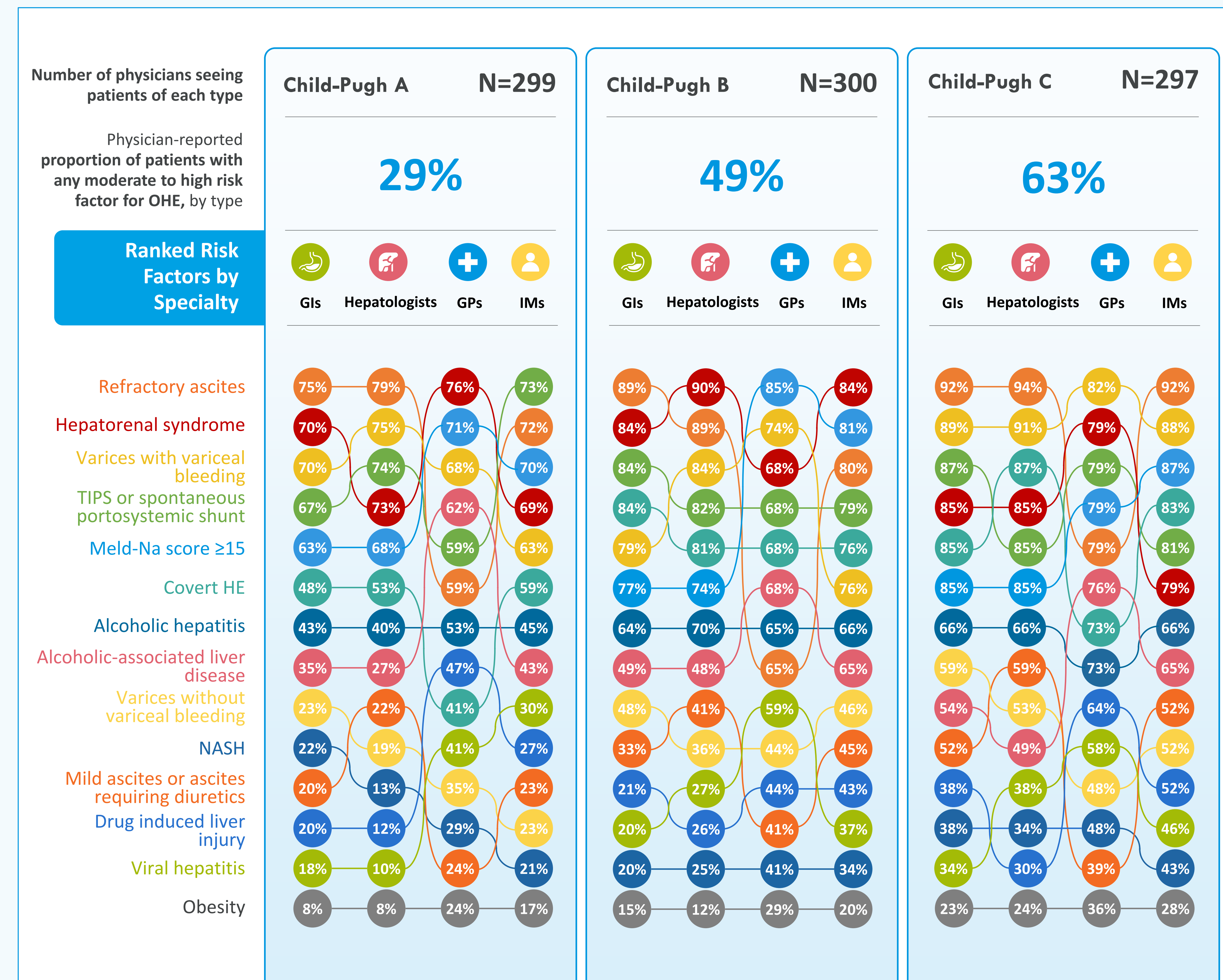
- Physicians estimated that **46% of their current cirrhosis patients who had never had OHE were CPA, 31% CBA, and 23% CPC**



MODERATE TO HIGH RISK FACTORS FOR PRIMARY OHE

- Physicians reported **29% of their CPA patients, 49% of their CPB patients, and 63% of their CPC patients** as having ≥ 1 moderate to high risk factor for OHE
- Refractory ascites** was identified among the three most important risk factors for OHE by hepatologists, GIs and IMs, however considered relatively less important by GPs
- A **MELD-Na score ≥ 15** was identified to be of highest importance for OHE by IMs and GPs only
- For CPB patients, **hepatorenal syndrome** was regarded by all specialties as one of the three most important moderate to high risk factors for developing OHE

Figure 3. Moderate to high risk factors of primary OHE



Abbreviations: CPA, Child-Pugh A; CPB, Child-Pugh B; CPC, Child-Pugh C; GI, gastroenterologist; GP, general practitioner; HE, hepatic encephalopathy; IM, internal medicine; MELD-Na, model for end-stage liver disease-Sodium; NASH, Non-alcoholic steatohepatitis; HE, hepatic encephalopathy; TIPS, Transjugular intrahepatic portosystemic shunt. Notes: Percentages in the table refer to the proportions of physicians who considered the factors to be moderate to high risk. Risk factors with the same percentages within the same specialty share the same rank.

CONCLUSIONS

- Multiple physician specialties** are involved in the care of patients with cirrhosis in the US
- Although some risk factors for developing primary OHE are well-recognized, there is a **lack of consensus** across specialties on what constitutes a “moderate to high” risk factor
- The **differences in perceptions** may be due to variations in training or clinical experience of care providers, or the setting of patient interactions

LIMITATIONS

- Physician specialties were self-reported
- The survey was subject to common biases in survey studies, such as: response bias, where survey answers may be different from real-world choices; and sample selection bias, where the distribution of physicians may not be representative of the whole physician population

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DISCLOSURE

AJ provides consulting services to Salix Pharmaceuticals, Inc. ZH is an employee of Salix Pharmaceuticals, Inc and may hold stock. AAD, BB and GJ are employees of Bausch Health, Inc., and may hold stock or stock options. DB is a postdoctoral fellow with Rutgers Pharmaceutical Industry Fellowship Program. PGS, NCH, RB and AG are employees of Analysis Group, inc., a consulting company that has provided paid consulting to Bausch Health, Inc., which funded the development and conduct of this study.

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