

# ***IMPACT*** of **Chronic** **Liver Disease**

---

## on **Healthcare Systems**

Supported by an educational grant from Mallinckrodt Pharmaceuticals and Grifols, S.A.

# Management Gaps in the Treatment of Liver Disease: Liver Health Annual Trends Report

**Nancy Reau, MD**

Professor of Medicine

Richard B. Capps Chair of Hepatology

Chief, Section of Hepatology

Associate Director, Solid Organ Transplantation

Rush University Medical Center

# Background

- CLD causes more deaths than stroke or diabetes in those aged 25 to 54
- The health care system is slow to implement a standardized, guideline-driven approach to care.
- Annual trends report: study participant awareness and utilization of CLD guidelines or cirrhosis quality metrics are a concern
- Respondents agree that implementing a standardized approach to care would be optimal...
  - Outlined several roadblocks one of which was lack of provider awareness and utilization of treatment guidelines or measures

Table 1 | **Study Participants Demographics**

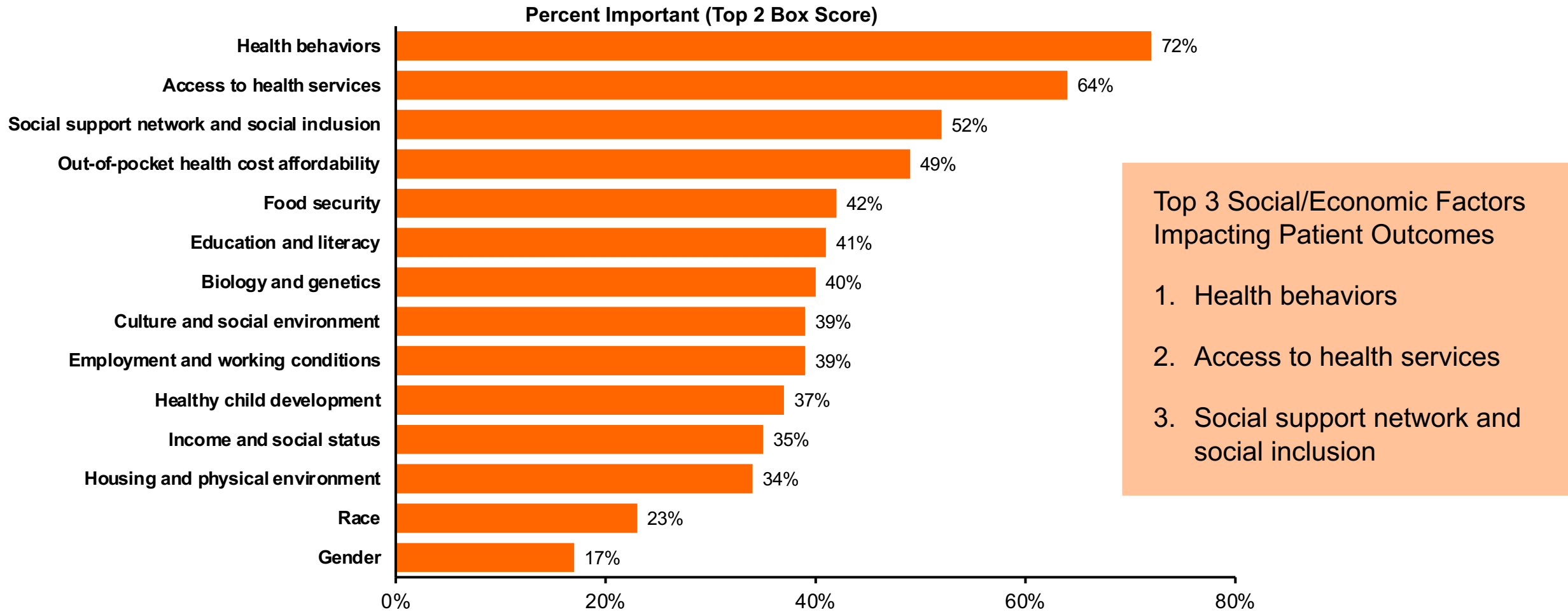
Online Survey Specialty (%)	In-depth Telephone Interviews Specialty (%)
<b>Specialists N=33</b>	<b>Specialists N=5</b>
Gastroenterology 30 (91%)	Gastroenterology 3 (60%)
Hepatology 3 (9%)	Hepatology 2 (40%)
<b>Hospital-based Physicians N=33</b>	<b>Hospital-based Physicians N=5</b>
ER Physicians 11 (33.33%)	ER Physicians 2 (40%)
Internists 11 (33.33%)	Internists 2 (40%)
Hospitalists 11 (33.33%)	Hospitalists 1 (20%)
<b>Primary Care Physicians N=34</b>	<b>Primary Care Physicians N=5</b>
Primary Care Physicians 34 (100%)	Primary Care Physicians 5 (100%)

# Future

- Mortality from CLD associated NAFLD is projected to nearly triple by 2030
- NAFLD and NASH are projected to increase 21% and 63%, respectively, between 2015 and 2030
- Decompensated cirrhosis is projected to increase by 180% by 2030,
- HCC is projected to increase by 137%

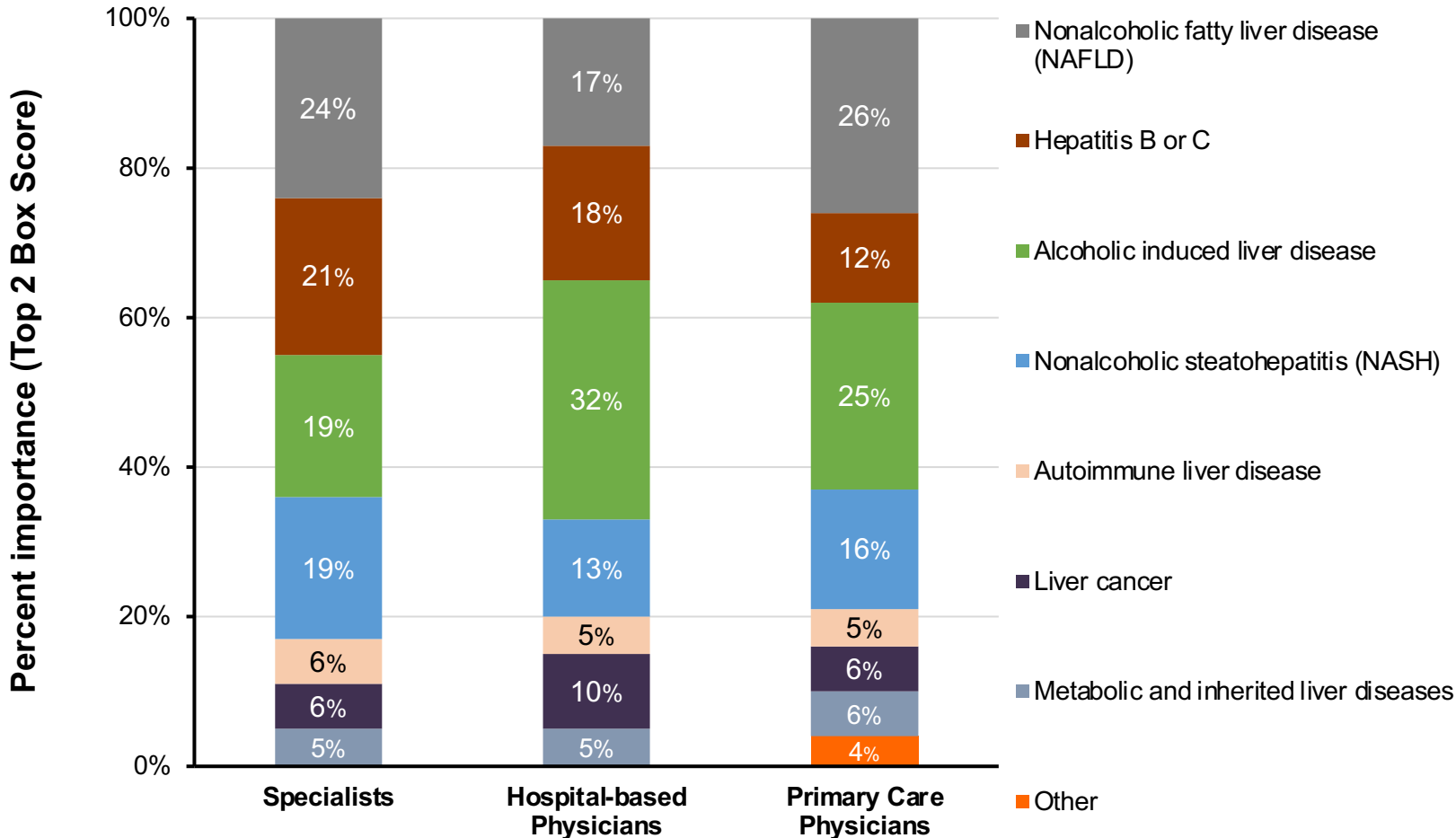
# Physician Education Won't Fix Everything

Figure 2 | Social/Economic Factors Impacting CLD Patient Outcomes



# Etiology Might Drive Approach

Figure 3 | Types of Liver Disease Study Participants Treat



Specialists strongly believe that patients must understand the link **between liver disease and cardiovascular risk** in order to make behavioral changes that slow disease progression.

NASH and NAFLD combined make up **42% to 43%** of these specialists' and PCPs' liver patients, and survey respondents expected **to increase in prevalence** within their practices.

# Factors Influencing Readmission Risk and Preventability for patients With Cirrhosis

## Factors influencing readmission rates

### Disease

Infections (SBP vs. non-SBP), HE, falls, refractory ascites, volume overload, hyponatremia.

### Patient

Social support, health literacy, transplant candidacy, distance from medical center, alcohol use/abuse

### System

Access to hepatology clinics, access to and ease of outpatient paracentesis, culture of multidisciplinary managements

## Modifiable risks to potentially reduce readmissions

**Proven Modifiable Risk Factors:** undertreated HE, symptomatic ascites

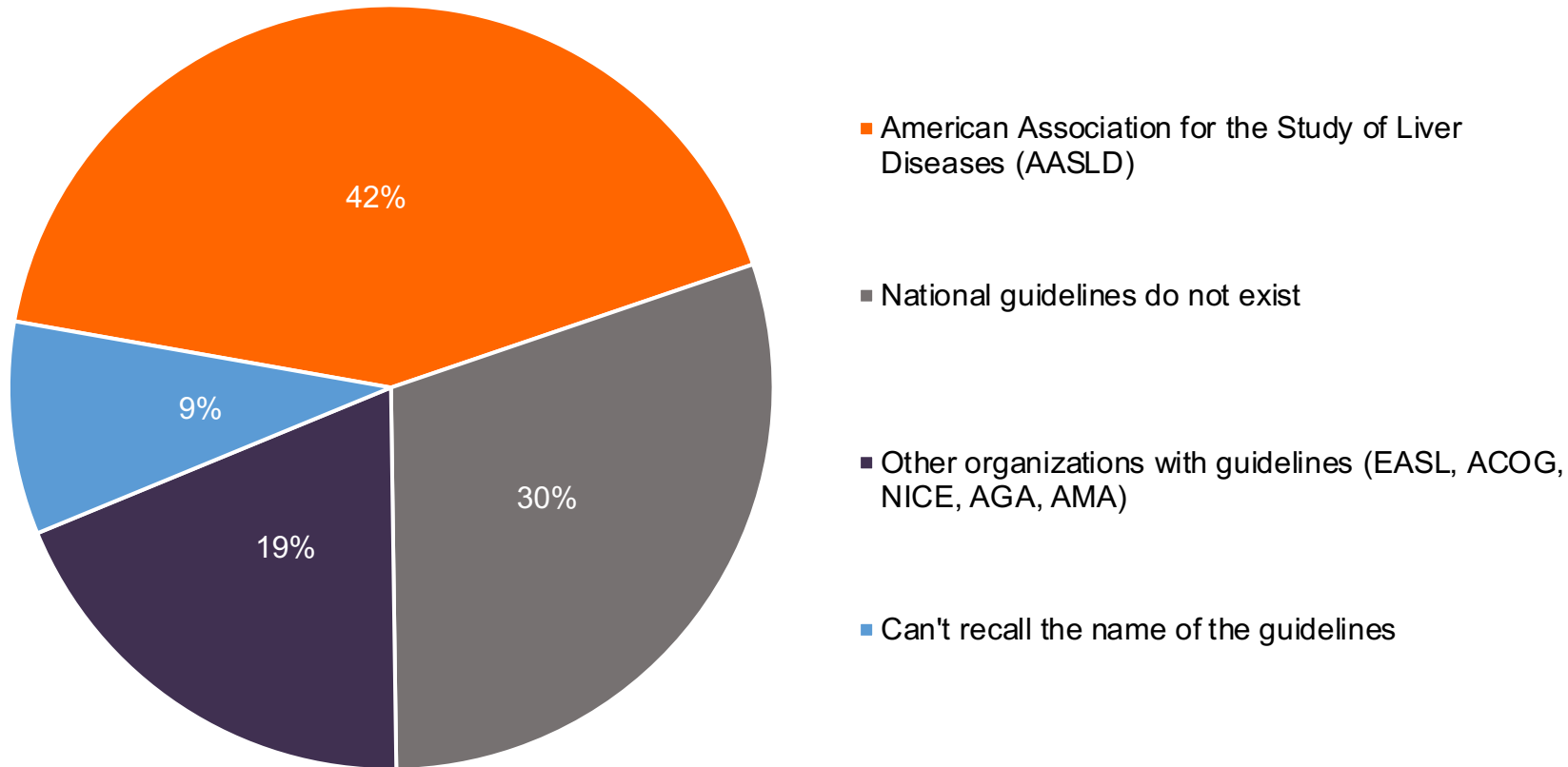
**Potentially Modifiable Risk Factors:** substance abuse, complications of medical treatment (e.g., diuretics and renal injury), PPI usage

Hospital readmissions can lead to increased morbidity (nosocomial infections, falls), mortality, and financial penalties.

Initiation of treatment to reduce the risk of overt HE recurrence can lead to decreased readmissions involving HE.

# Treatment Guidelines Optimize Best Practices and Patient Outcomes

Figure 6 | Awareness of National Guidelines for the Management of CLD

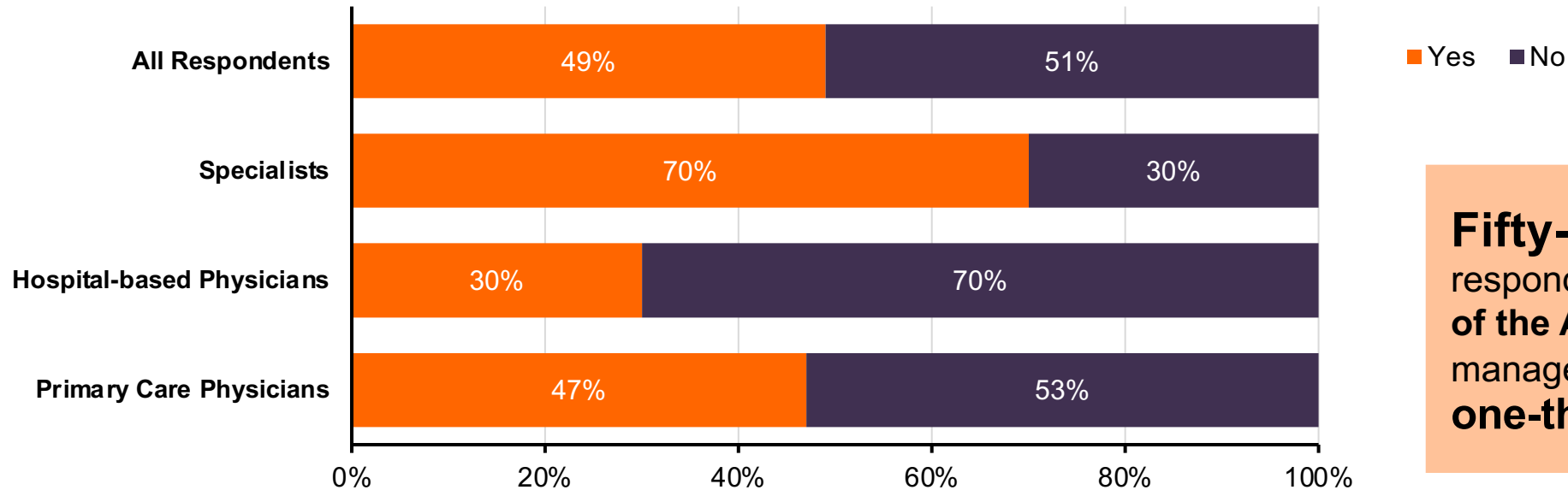


**Thirty-nine percent** of study participants were **unaware or unable to name** national guidelines for the management of CLD



# Guidelines Are Underutilized

Figure 7 | Utilization of the AASLD Guidelines for the Management of CLD



**Fifty-one percent** of the respondents are not using any of the AASLD guidelines for the management of CLD, including **one-third of specialists**.

“Hospitalists manage all kinds of diseases, and it’s almost impossible to know all of the guidelines.”

—Hospitalist

“It is helpful sometimes to have order sets to help us not miss things.”

—Hospitalist

Respondents did feel that adopting guidelines was important if it improved patient outcomes, reduced hospitalizations and slowed disease progression

# Practice Metrics Are Unknown

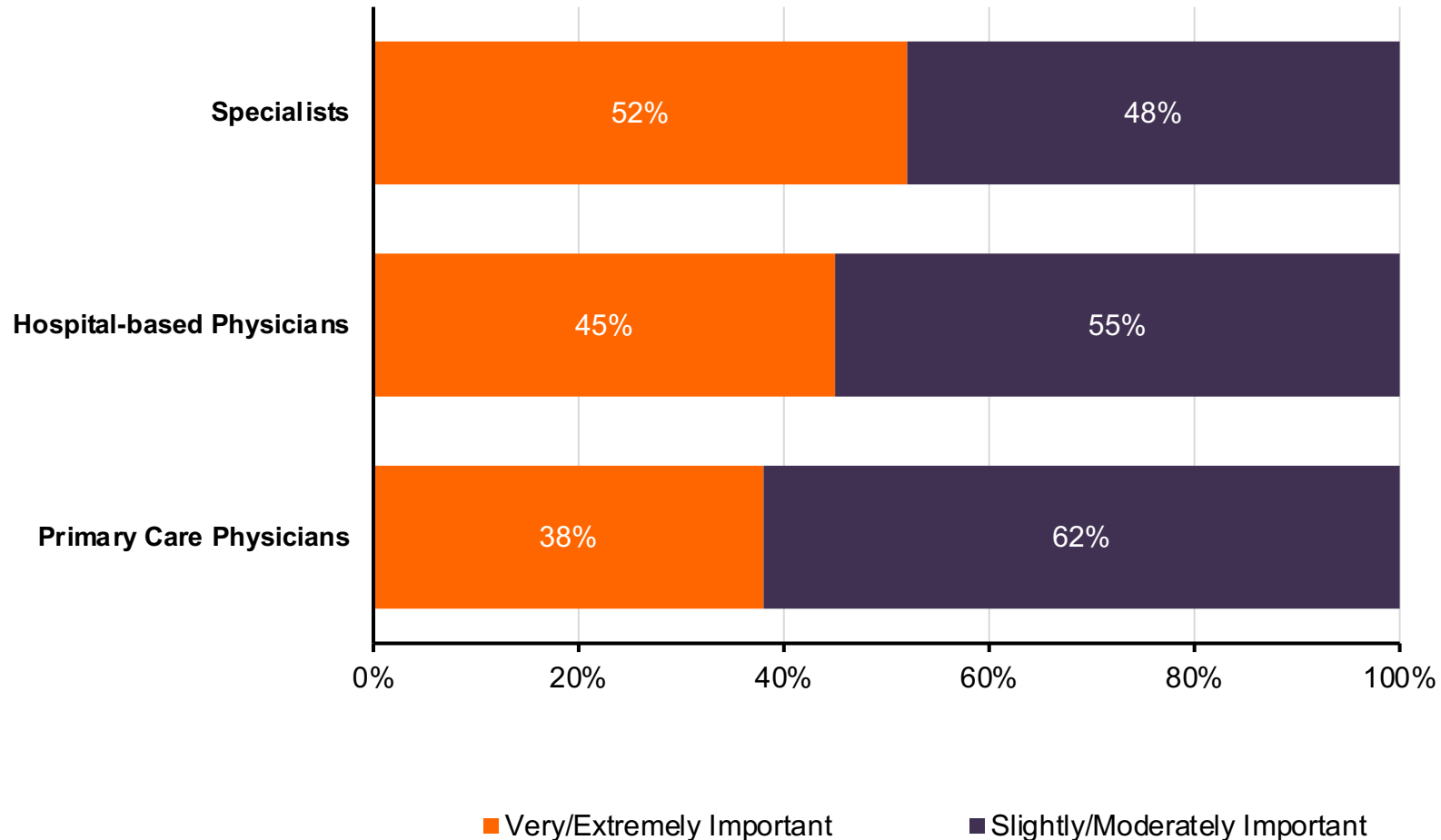
- **Only 26% of survey participants report having received written guidance on AASLD's Cirrhosis Quality Measures from their organization.**

“I wasn't aware that the AASLD had quality metrics for liver disease. We have quality metrics for heart failure at our hospital. The metrics are built into our EMR but nothing specific to liver exists as far as I know.”

—ER physician

# Utilizing Quality Measures Will be an Uphill Battle

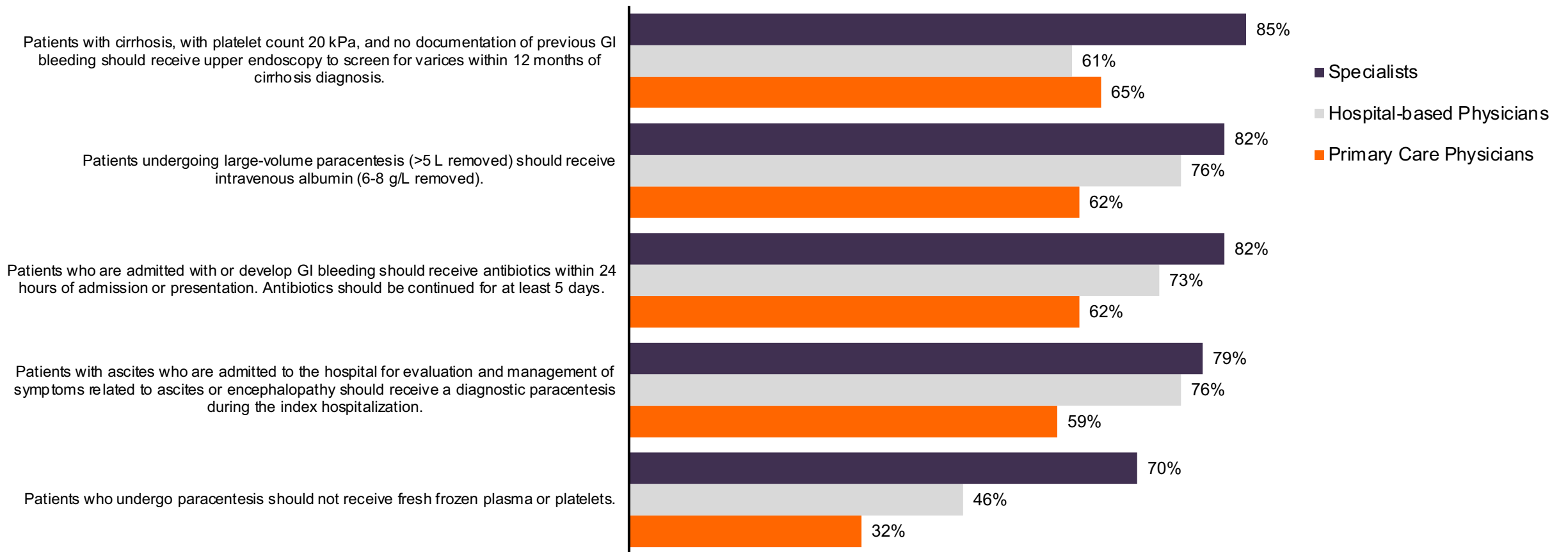
Figure 11 | Is It Important to Align CLD Patient Management With National Guidelines or Quality Measures?



**Less than half of the study participants responded that aligning treatment with national guidelines is extremely/very important.**

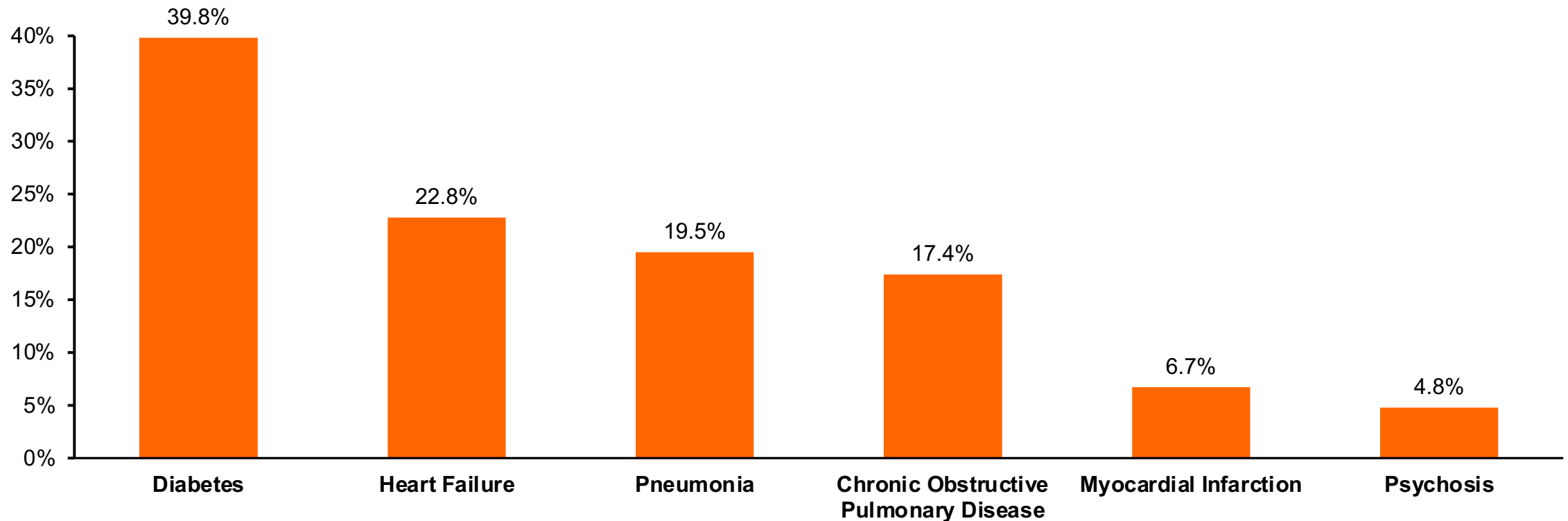
# Many Clinicians Disagree With Practice Recommendations

The majority of specialists (>70%) strongly agreed with all of the AASLD Cirrhosis Quality Measures. The PCPs' agreement was statistically significantly lower across 10 of the 26 measures.



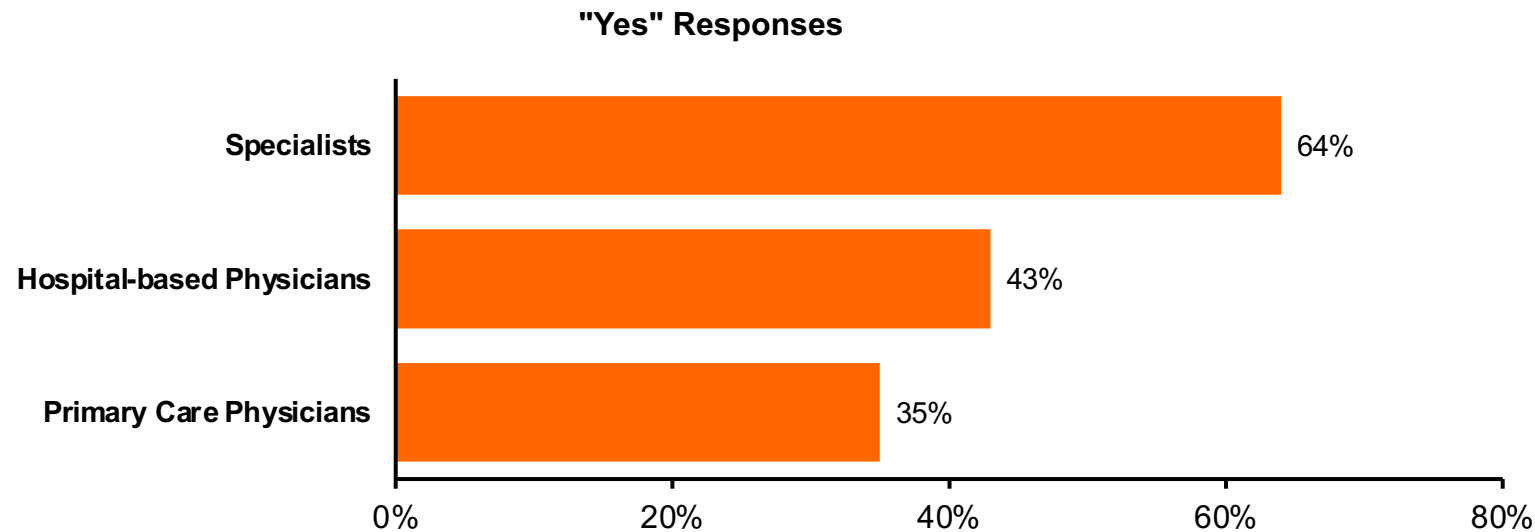
# Cirrhosis Impacts Metrics Clinicians Care About

Figure 17 | Percentage of HE Patient Encounters With Diagnoses Tied to CMS Quality Metrics in 2019<sup>19\*†</sup>



# Let's Use HE as an Example

Figure 18 | Utilization of AASLD/EASL HE and Practice Guidelines



Respondent utilization of the AASLD/EASL hepatic encephalopathy guidelines is low, especially among the PCPs (35%).

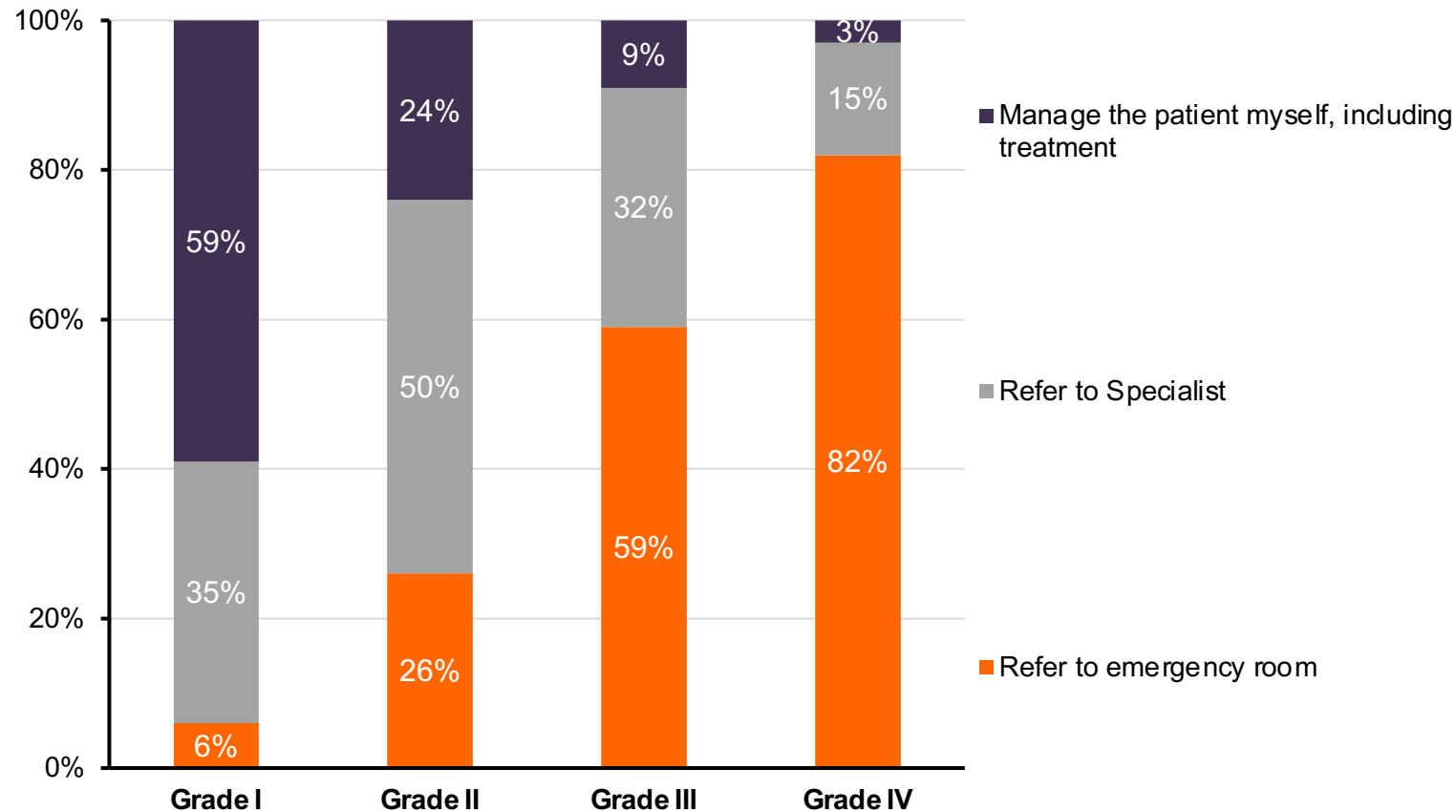
PCPs had the most difficulty identifying factors that exacerbate HE

Table 3 | Top Factors Influencing HE Treatment Decisions

Specialists	Hospital-based Physicians	Primary Care Physicians
Proven to reduce the risk of hospitalizations	Is identified as the standard of care for liver disease patients	Treatment is covered by insurance

# And Yet PCPs Often Manage HE

Figure 20 | Primary Care Physicians' Referral and Management of HE by Grade\*



The majority of PCP respondents refer Grade III and IV OHE patients to the emergency room.

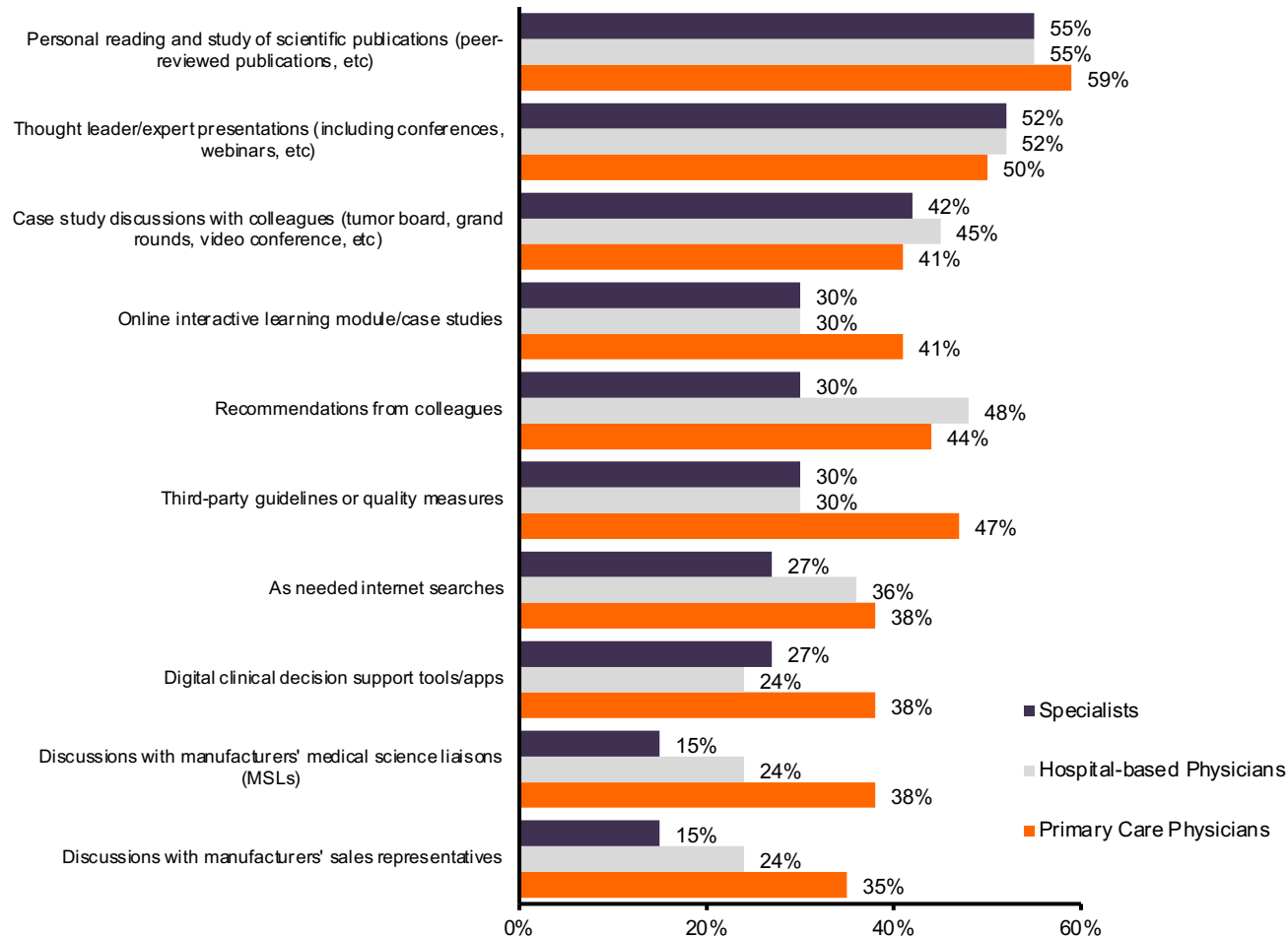
Twenty-four percent of respondents stated they manage Grade II patients themselves.

# Interactions Could Be Part of the Issue

How do we increase awareness for something they don't know exists when reading is the preferred resource?

Figure 27 | Percent Resources to Enhance CLD Patient Management

Percent Important (Top 2 Box Score)



**Clinical data, thought leader/expert presentations, and consults** are leading tools utilized by study respondents to ensure patient management.

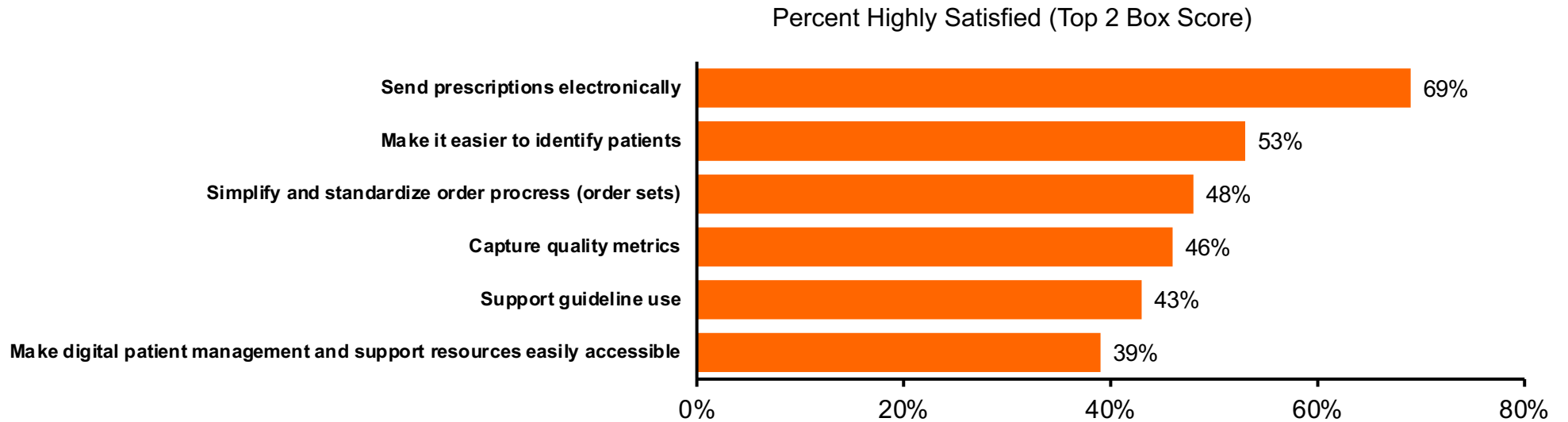
According to in-depth interviews, **elevating patients' literacy and making the link between liver health and risk factors** is critical.

**A multidisciplinary treatment and support team** is considered very important to patient management over the length of their disease.



# Current Tools Are Not Well Utilized

Figure 28 | Physician Satisfaction With Their HER System



“I wish the guidelines were integrated into our EHR system because 99% of the time it would be helpful.”

—Hepatologist

“We don’t get much information from our EHR related to liver disease—actually, I wish there were more prompts because that would be helpful.”

—Hospital-based internist/cardiologist

“It would probably be best to incorporate [guidelines] into the EMR ... like, for example, ... their MELD score.”

—ER physician

**Physicians’ satisfaction with EHRs’ currently ability to support CLD patient management by way of guidelines or quality metrics is low among study participants.**

# Summary

- CLD is anticipated to increase significantly
- Disease awareness is poor and management tools are underutilized by the spectrum of clinicians that support this population
- This is a modifiable variable that could improve health outcomes in patients with CLD