

Improving Outcomes for Hispanic Patients Undergoing Peginterferon/Ribavirin Therapy for Chronic Hepatitis C in an Internist-led, Multidisciplinary, Multi-cultural Practice: A Unique Application of the Medical

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Published In/Presented At

Yozviak, J.L., Penaloza, O.J., & Knoop, J. (2011, March 17-20). *Improving Outcomes for Hispanic Patients Undergoing Peginterferon/Ribavirin Therapy for Chronic Hepatitis C in an Internist-led, Multidisciplinary, Multi-cultural Practice: A Unique Application of the Medical Home Model*. Presented at: The 15th Annual National Hispanic Medical Association Conference, Washington, DC.

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Improving Outcomes for Hispanic Patients Undergoing Peginterferon/Ribavirin Therapy for Chronic Hepatitis C in an Internist-led, Multidisciplinary, Multi-cultural Practice: A Unique Application of the Medical Home Model

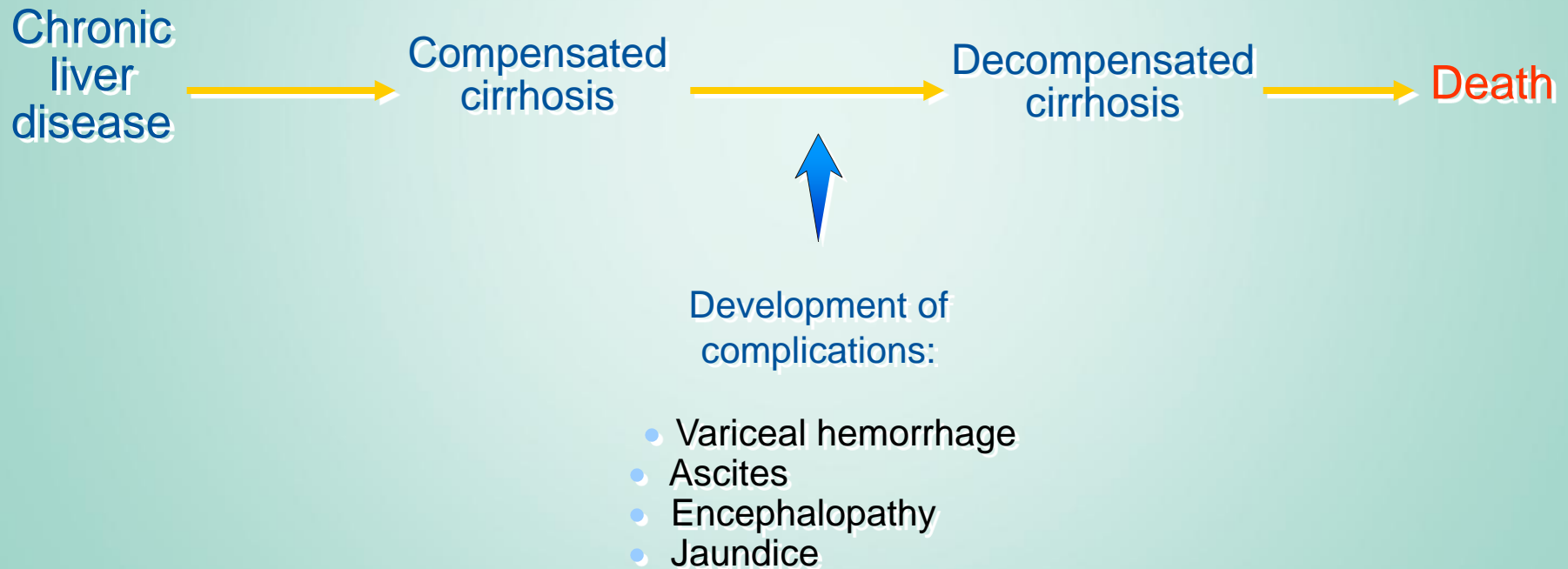
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Judith Knoop LCSW, Judith Lash ACRN

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What is the Natural History of Hepatitis C Infection?

Natural History of Chronic Liver Disease



Median Survival in Cirrhosis

- Compensated Cirrhosis 9 yrs
- Decompensated Cirrhosis 1.6 yrs
 - Jaundice
 - Encephalopathy
 - Ascites
 - Variceal hemorrhage
- Hepatopulmonary syndrome 10 mos
- Spontaneous bacterial peritonitis 9 mos
- Hepatorenal syndrome
 - Type 1 6 mos
 - Type 2 2 wks

The Term “Minority”

- In **socioeconomics**, typically refers to a socially ethnic group (understood in terms of language, nationality, religion and/or culture).
- Other minority groups include people with disabilities, "**economic minorities**" (working poor or unemployed)



Health Disparities/Healthcare Inequality

- Refers to gaps in the quality of health and health care across racial, ethnic, sexual orientation and socioeconomic groups.



Current Situation

- There are an estimated **40 million** Latinos living in the United States.
- By the year **2050**, it is estimated that Latinos will comprise **25%** of the U.S. population, which makes Latinos the largest and **fastest growing minority** group in the U.S.

Current Situation

- The **prevalence** of hepatitis C (HCV) among Latinos is estimated at **2.1%**
- Which is **significantly higher** than the estimated prevalence of 1.8% in the general population, and the 1.5% in the non-Latino Caucasian population.

Current Situation

- There are however many factors that could affect diagnosis, disease progression and treatment outcomes in Latinos

Current Situation

- Latinos with hepatitis C virus (HCV) infection have **more rapid progression** of fibrosis and **decreased response** to anti-HCV treatment.¹
- The **high rates** of metabolic syndrome, insulin resistance, and hepatic steatosis, as well as **genetic differences**, may explain the severity of chronic hepatitis C (CHC) in this population.²

1. Verma S, et al. Am J Gastroenterol 2006;101:1817-23.

2. Wong R, et al. Am J Med 2008;121:525-31.

Current Situation

- In addition, Latinos encounter substantial barriers to medical care.
- Including language, cultural differences, and socioeconomic factors such as lack of medical insurance.

Who We Are

- Largest academic community hospital in PA
- Largest Level 1 Trauma Center in PA
- Certified Stroke Center
- Employees – 9,656
Medical Staff – 1,100+
Nurses – 2,334
- Magnet Hospital
- 154,792 ED visits /
63,743 admissions
- 988 acute care beds
- 3 hospital campuses
- Revenues over
\$1 Billion



Cedar Crest



17th Street



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Who We Are

- Our network maintains a strong academic presence with 15 free standing, fully accredited training programs.
- The not-for-profit network has a major affiliation with the University of South Florida as well as a long-standing affiliation with Penn State College of Medicine/Hershey Medical Center.

Who We Are

- The Lehigh Valley
 - Allentown
 - Bethlehem
 - Easton
- Located 1 hour north of Philadelphia and 1.5 hours west of New York City.
- Third largest metropolitan region in PA
 - Population ~816,000



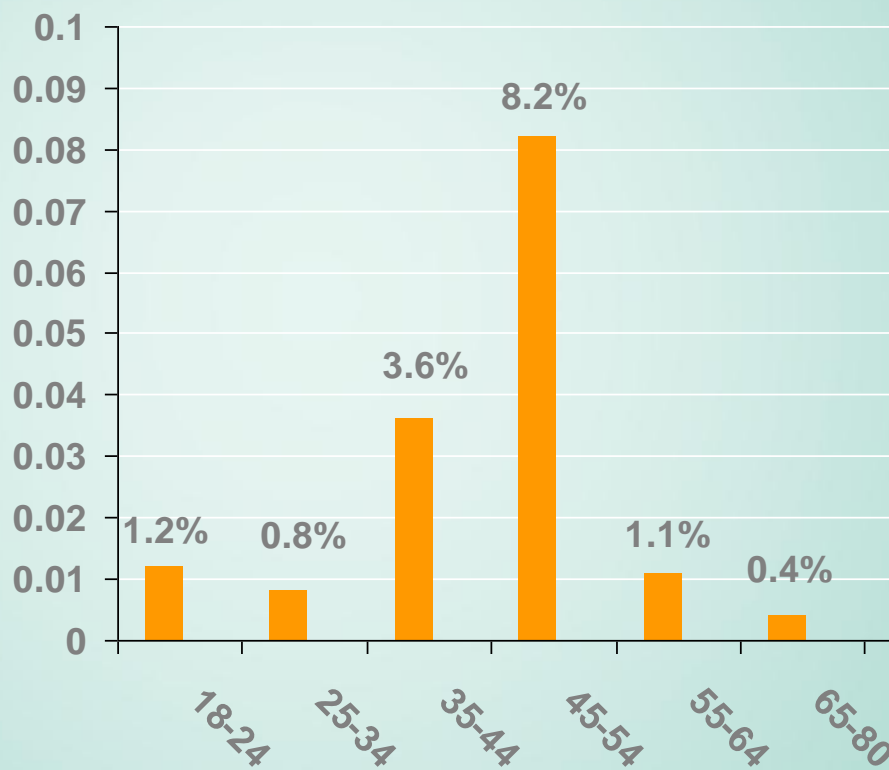
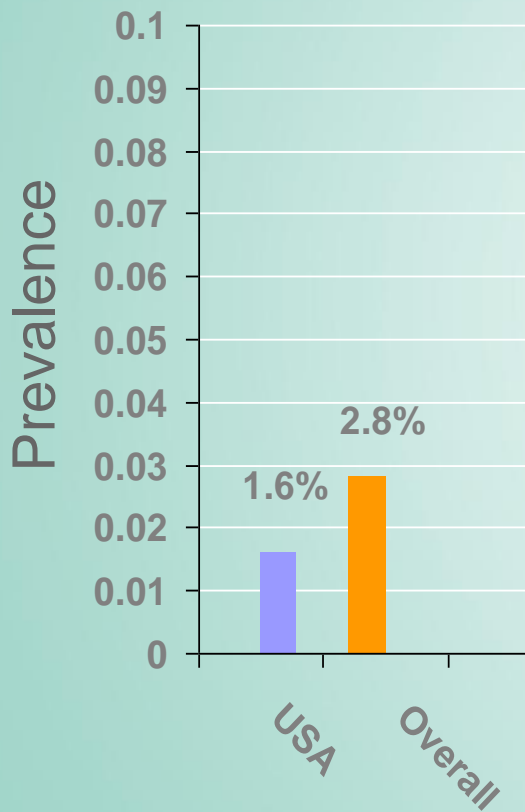
Learning Objectives

- Demonstrate the multiple factors influenced by race and ethnicity that affect response to peginterferon/ribavirin therapy for chronic hepatitis C.
- Describe how aspects of a multidisciplinary chronic care model, such as the patient-centered medical home, can be applied to the management of hepatitis C to improve outcomes in a diverse population

Hepatitis C: A Curable Infection

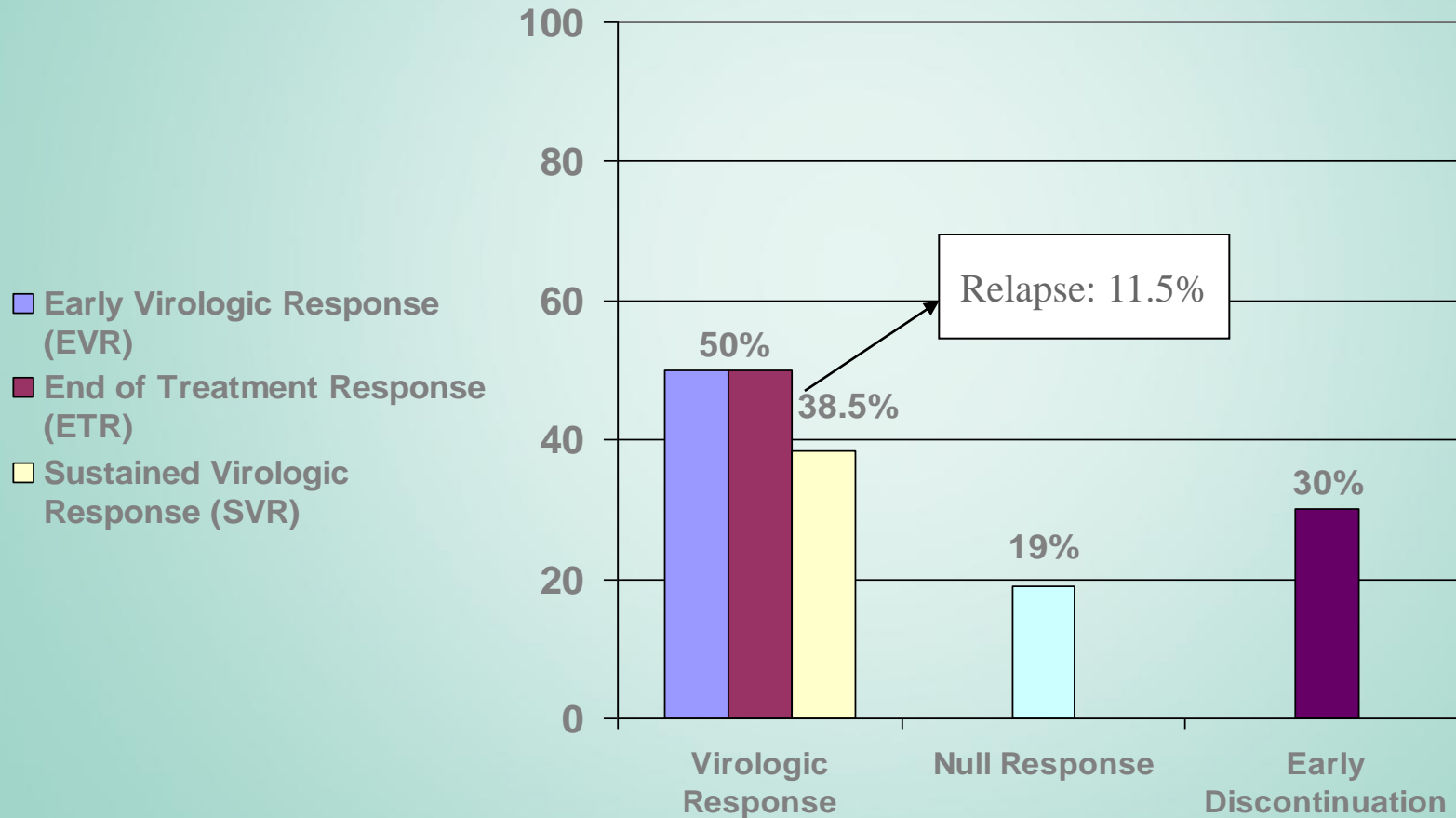
- Pegylated interferon/ribavirin therapy offers a chance to eradicate hepatitis C
 - Genotype 1 – 40%
 - Genotype 2,3 – 75%-90%
 - Genotype 4 – 55%
- Sustained Virologic Response (SVR)
 - HCV RNA < LLD measured 24 weeks following completion of therapy
 - Multiple studies have equated to a cure

HCV Seroprevalence at LVHN: *Staggering Results*



Age

Pilot Hepatitis C Clinic: *Encouraging Outcomes*



Yet, The Cure Remains Elusive

- Many comorbidities influence response negatively
 - HIV, Obesity, Hepatic steatosis, Prediabetes/Diabetes
 - Mental Illness, Addiction
- Access to care remains problematic
 - Uninsured, Medicaid, Medicare
 - Minorities
 - Community providers may be disengaged
- We proposed that integration of a hepatitis C treatment program into an existing multidisciplinary, multicultural practice employing a chronic care model successful in other disease states can both increase access to care and improve treatment outcomes.

Hepatitis Care Center

- Merged services with LVHN AIDS Activities Office: A True Medical Home
 - Ryan White CARE Act (HIV primary care practice)
 - More than a decade of experience with viral hepatitis treatment (HBV and HCV)
 - Experts in adherence support
- Multidisciplinary staff
 - General Internists with Viral Hepatitis/HIV Focus of Practice
 - 50% bilingual (English and Spanish)
 - RN/case manager
 - LCSW mental health coordinator
 - Dietician
 - Research
 - Trained medical interpreters

Maximizing Outcomes With Current Therapies

- Maximizing number of patients completing therapy = increased SVR
- Focus on preparation for treatment
 - Repetitive education by multiple disciplines
 - Stabilize and optimize treatment of psychiatric disease/addiction
 - Achieve 10% weight loss if BMI elevated or evidence of insulin resistance; aggressively manage diabetes
 - Partner with primary care physicians (PCP) to optimize management of underlying medical conditions
 - Partner with PCP and psychiatrists, providing clear expectations for management of comorbidities on treatment
 - Build support system within practice and at home, prior to starting therapy
- Should translate into improved adherence, completion of therapy, and SVR

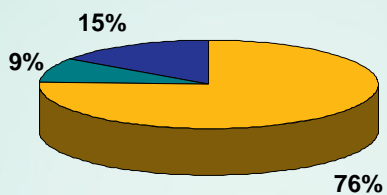
Demographics

Race/Ethnicity	
White	43% (33)
Hispanic	41% (31)
Black	11% (8)
Asian	3% (2)
Egyptian	3% (2)
Sex	
Male	49% (37)
Female	51% (39)

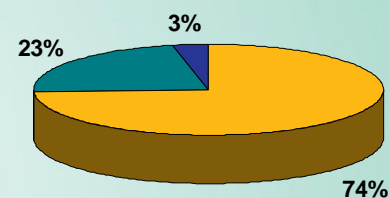
- 76 patients initiated peginterferon/ribavirin therapy
- 61 patients have final data available for analysis

HCV Genotype

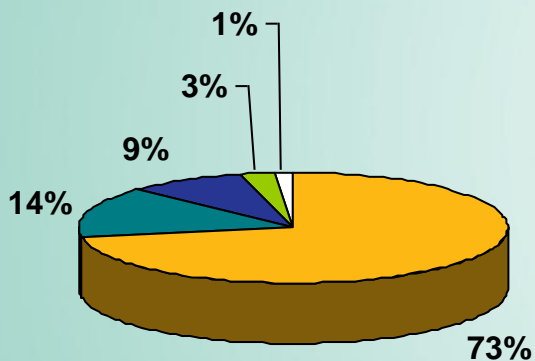
White Patients



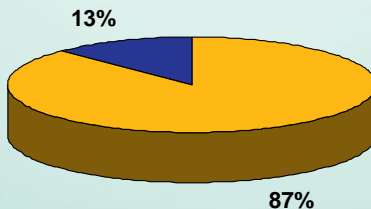
Hispanic Patients



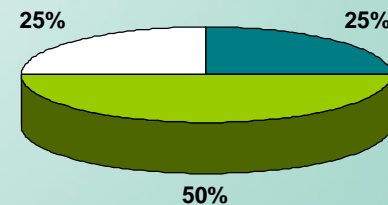
All Patients



Black Patients



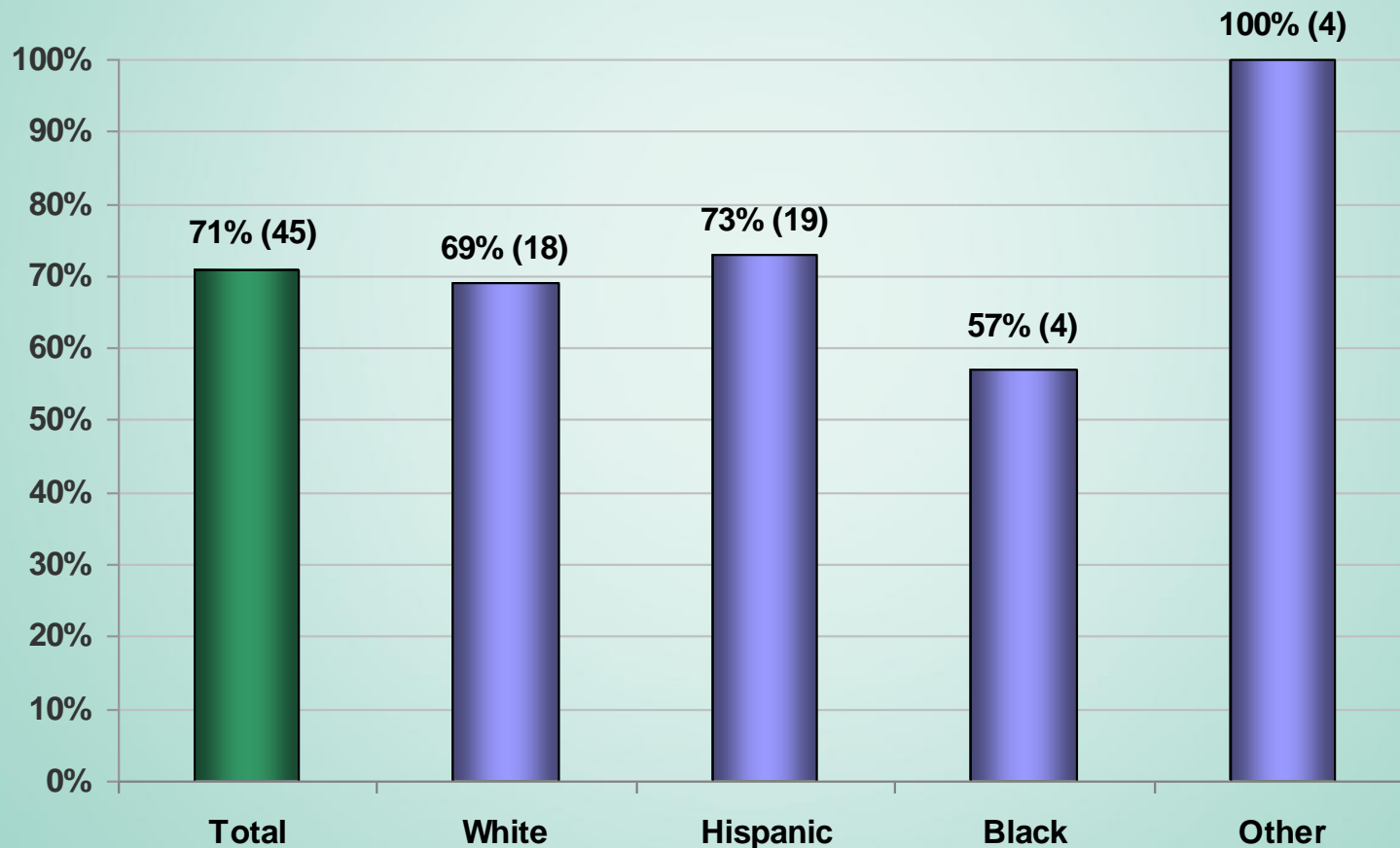
Other Patients



■ Genotype 1
 ■ Genotype 2
 ■ Genotype 3
■ Genotype 4
 ■ Genotype 6

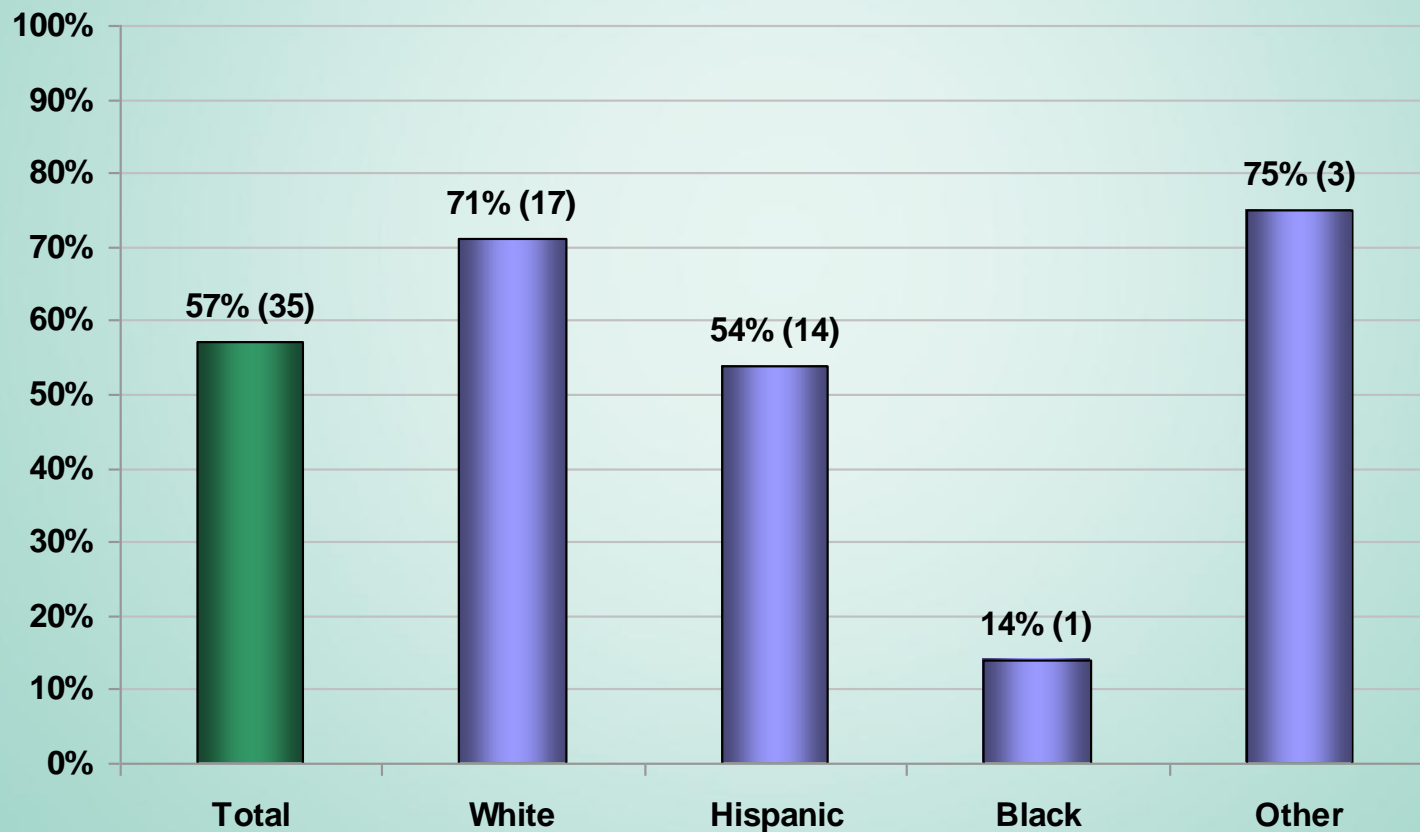
Completion of Therapy

N = 63



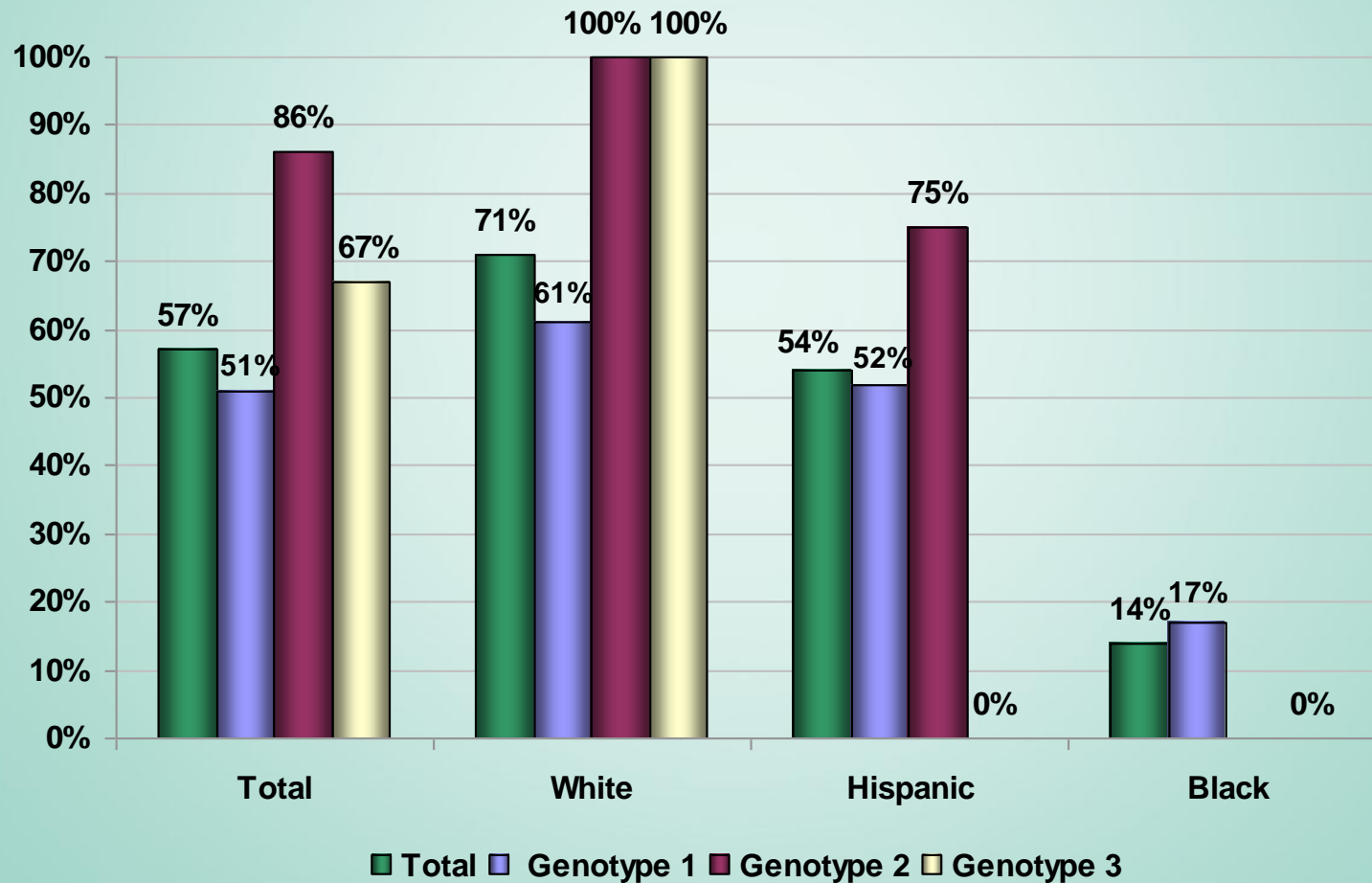
Sustained Virologic Response

N = 61



Sustained Virologic Response

N = 61

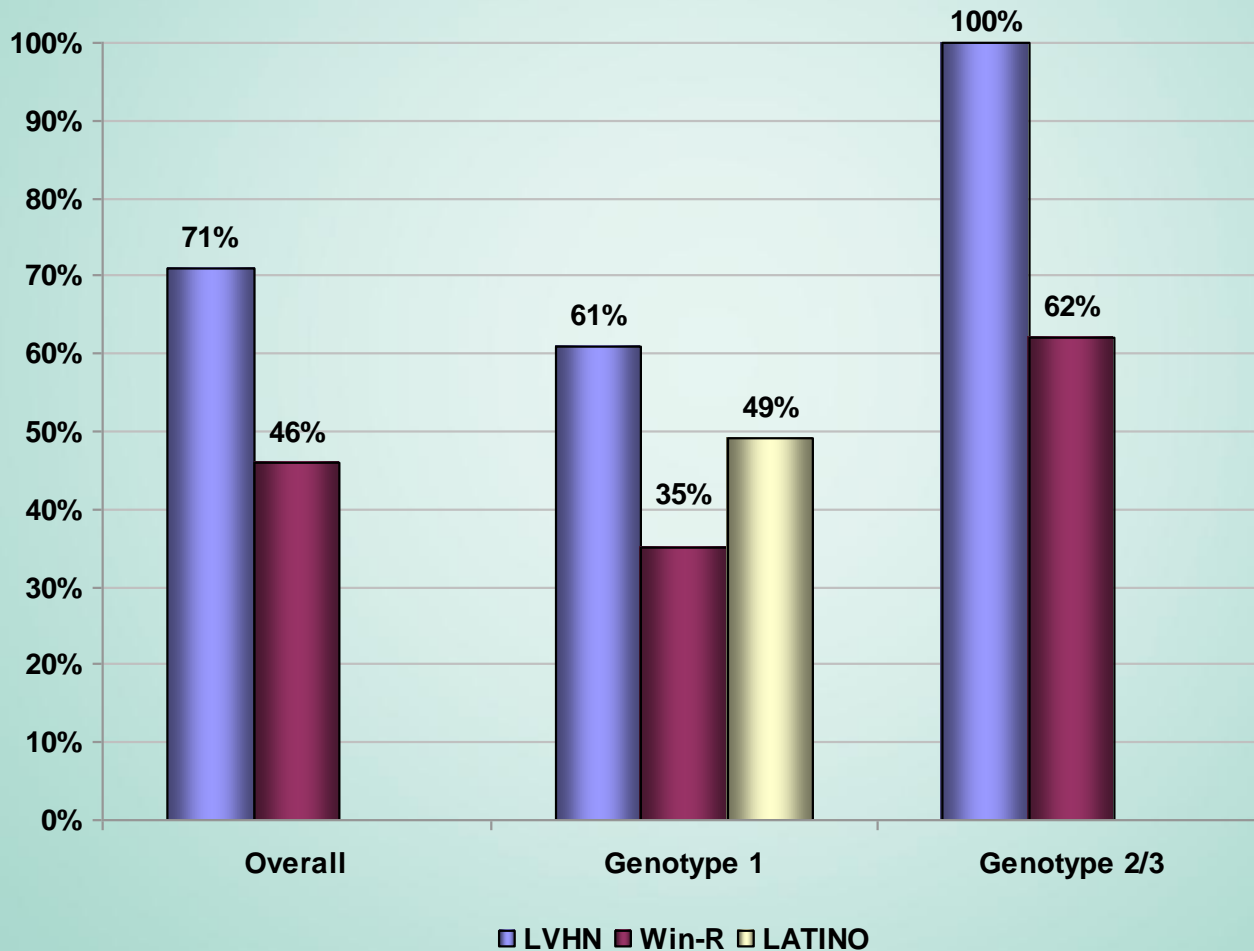


Discussion

- Supporting patients through peginterferon/ribavirin therapy involves a multifaceted approach
- The use of a multidisciplinary treatment model in a multicultural practice resulted in high rates of completion for patients of most races/ethnicities
- Our approach of coordinating management of medical, psychiatric, and social conditions in a complex and diverse patient population resulted in rates of SVR comparable to those of clinical trials with highly selected participant populations
 - Genetic predispositions (e.g. IL28B) continue to lead to disparate rates of SVR with current therapies

SVR Comparisons:

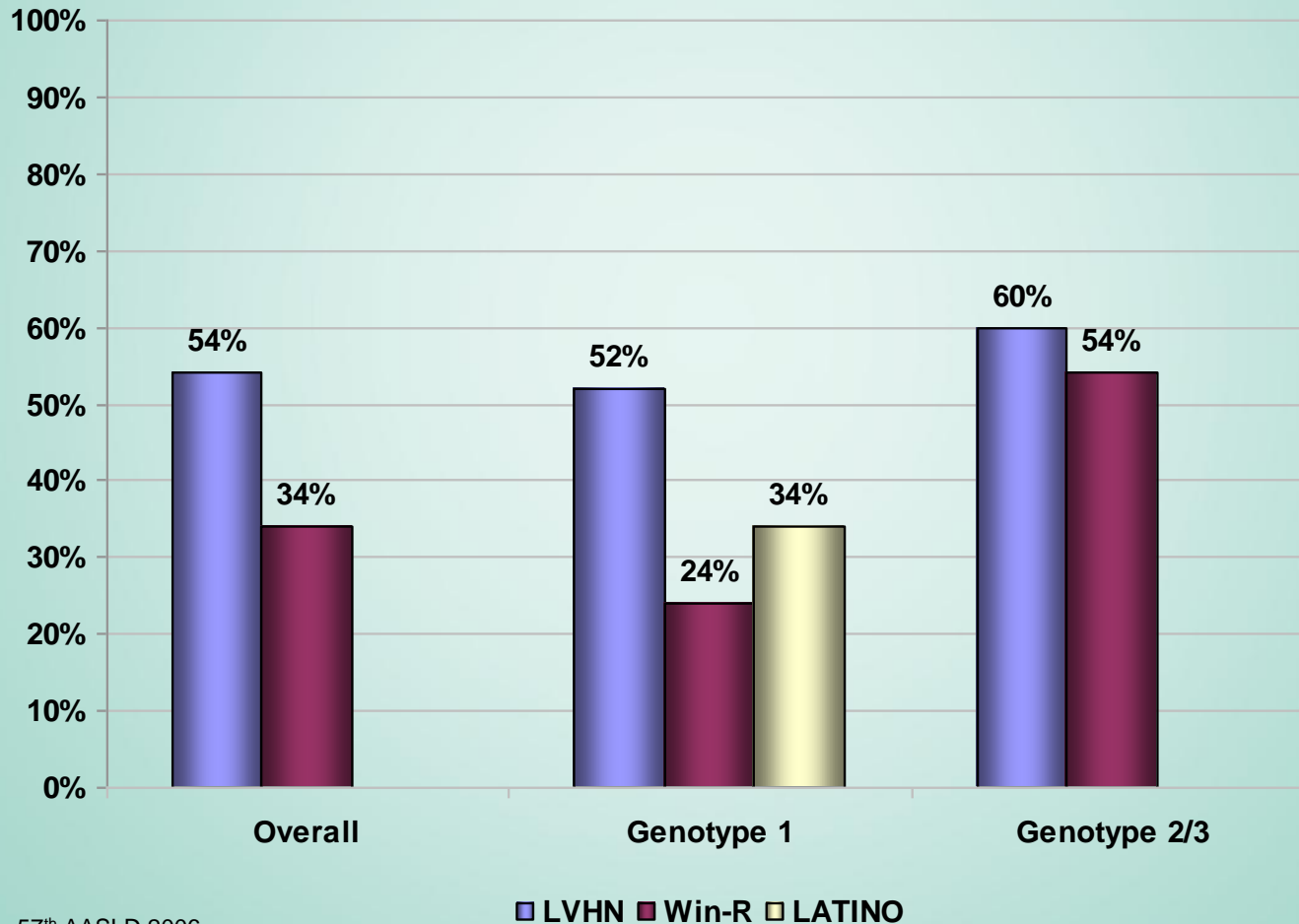
Focus on White Patients



1. Freilich B, et al. 57th AASLD 2006.
2. Rodriguez-Torres M, et al. N Engl J Med 2009; 360:257-67.

SVR Comparisons:

Focus on Hispanic Patients



1. Freilich B, et al. 57th AASLD 2006.
2. Rodriguez-Torres M, et al. N Engl J Med 2009; 360:257-67.

Discussion (cont.)

- By focusing efforts on stabilization of medical/psychiatric comorbidities and preparation of patients for peginterferon/ribavirin therapy, treatment of HCV can be provided to a broader population.
- This model of care can be replicated, particularly in practices transitioning to become patient-centered medical homes, where medical, case management, mental health, and nutrition services may be co-located.

Acknowledgements

- Our co-authors
- Hepatitis Care Center and AIDS Activities Office Staff
- Jean D'Aversa BSN, ACRN
- Timothy Friel MD, Marcelo Gareca MD, FACP, Margaret Hoffman-Terry MD, FACP
- LVHN -17th Street Campus Administration
 - Edgar Maldonado MD, Linda Faust, James Geiger
- Debbie Salas-Lopez MD, FACP

Questions?

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