

Understanding Screening Practices for Hepatitis B Prior to Starting Biologics at an Academic Medical Center

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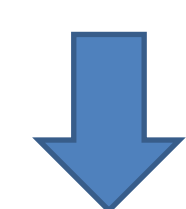
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Introduction

- It is estimated that 0.3% of the US population has chronic hepatitis B (HBV) infection, majority are asymptomatic¹
- Biologic medications can reactivate chronic HBV with mortality rates as high as 40%²
- We aim to understand HBV screening practices prior to starting biologics at a single tertiary academic medical center

Methods

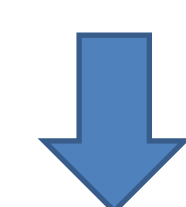
Retrospectively reviewed charts of patients, ≥18 years of age, who were prescribed a biologic medication from 2016 to 2019 in Dermatology, Rheumatology, or Gastroenterology clinics at Tufts Medical Center



Data Extraction: Demographic information (age, sex, race), clinic attended, immunosuppressive agents used, and HBV serologies ordered



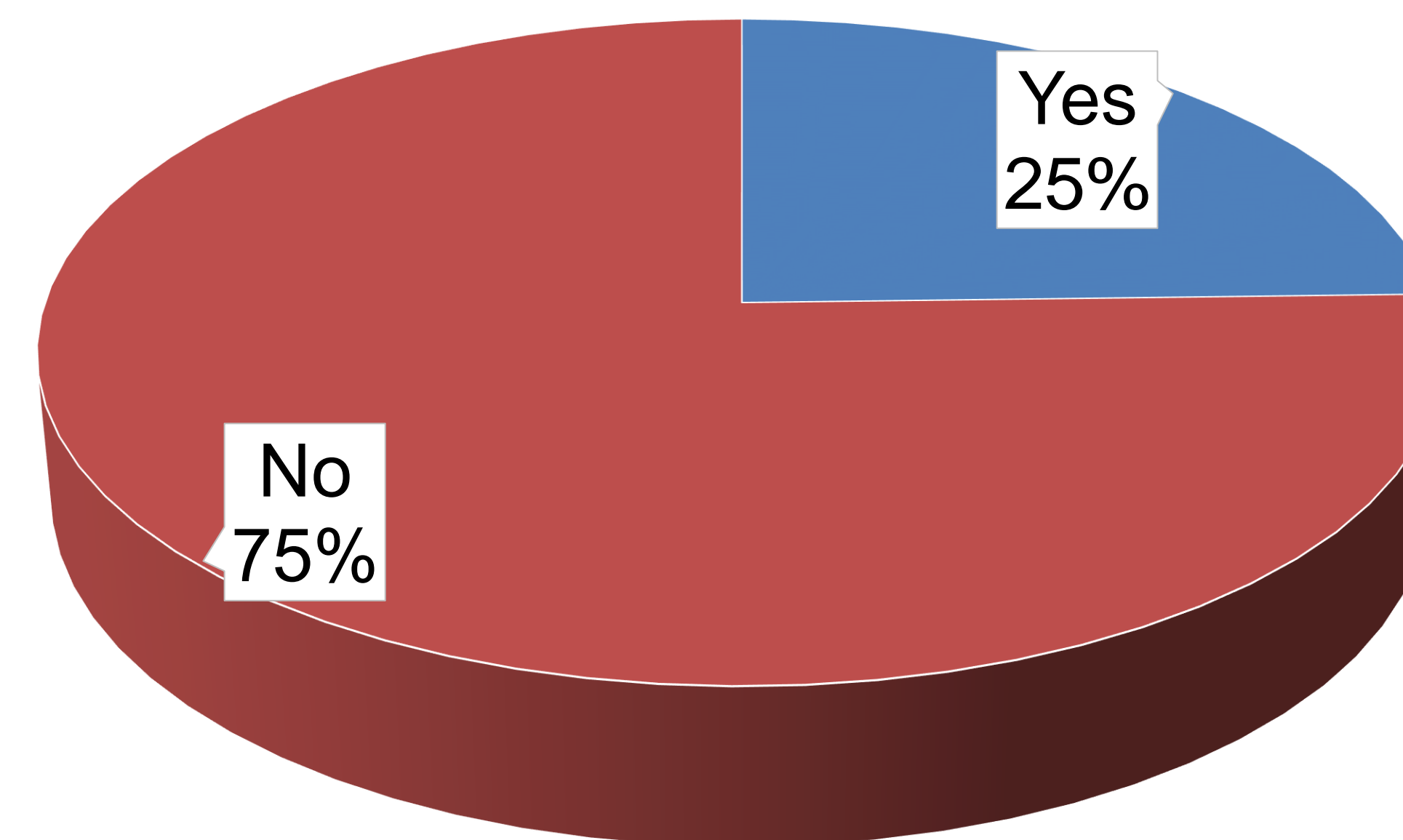
Determined the HBV screening compliance rate: proportion of patients who had appropriate HBV serologies (HBV surface antigen and HBV core antibody) drawn within six months prior to initiation of biologic therapy



A survey was sent to providers from these departments to ascertain their current HBV screening practices

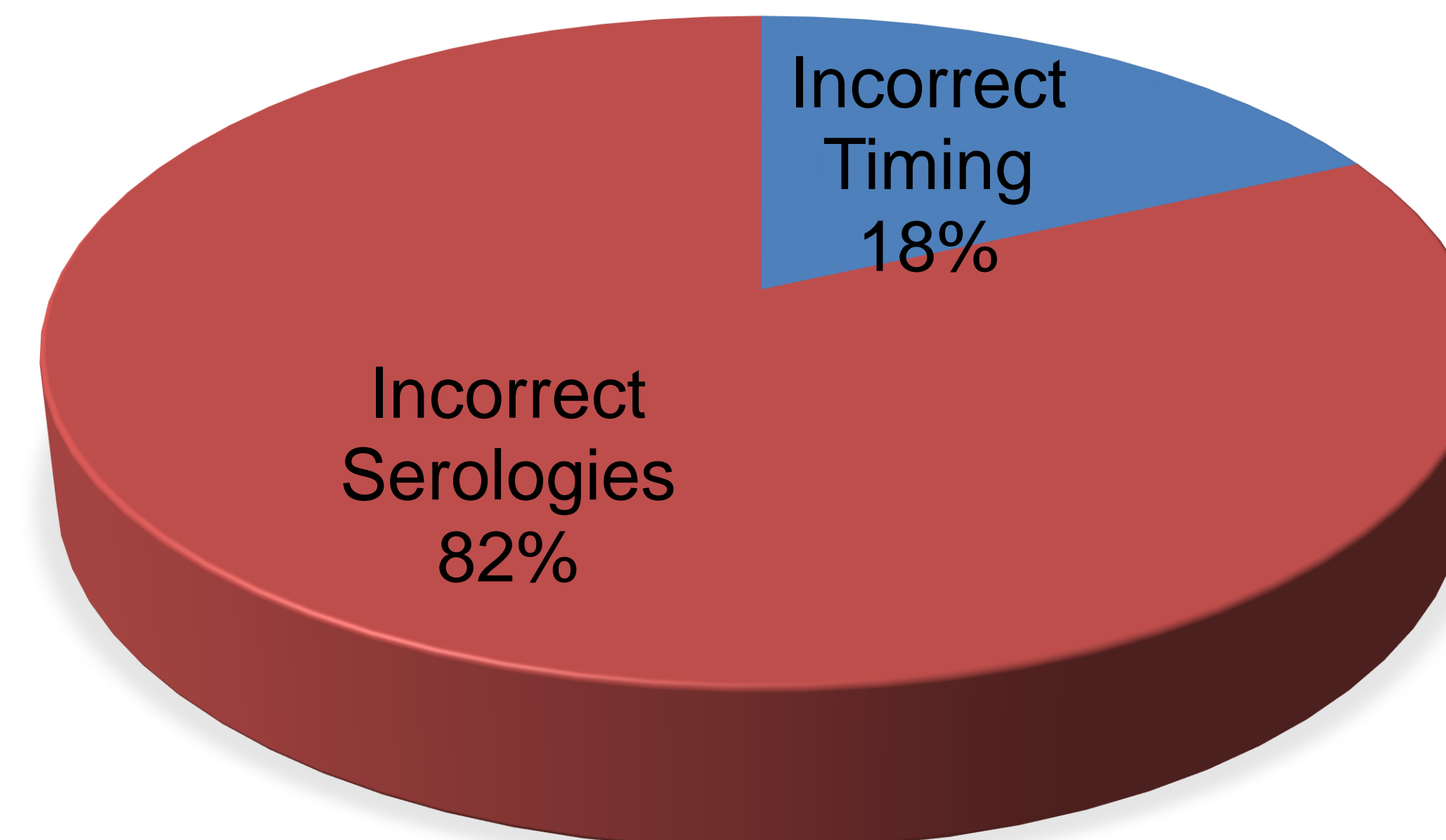
Results/Discussion

Adequate Screening (n=133/541)



- Dermatology 83/193 (43%)
- Gastroenterology 14/63 (22%)
- Rheumatology 26/285 (9%)

Reasons for Inadequate Screening



Survey of Physician Practices of HBV Screening

23 providers participated in the survey

Department	N	Years of practice	N
Rheumatology	7	Currently in training	8
Gastroenterology	7	Practicing for <5 years	8
Dermatology	9	>5 years of experience	7

% providers who said they would screen everyone for HBV before starting a biologic 57%

% providers who chose appropriate serologies (HBV surface antigen and HBV core antibody) 78%

If a patient was switched to a new biologic, % providers who would repeat screening 48%

Time interval for rescreening 3 months to 5 years

Major barrier to screening Uncertainty regarding screening guidelines

Conclusions

- There is inadequate screening for HBV prior to commencing biologic therapy
- Potential solutions:
 - ✓ Wider dissemination and standardization of screening guidelines
 - ✓ Development of a protocolized approach to ordering of hepatitis serologies
 - ✓ Having a best practice advisory alert within the EMR

References

1. Roberts H, Kruszon-Moran D, Ly KN, Hughes E, Iqbal K, Jiles RB, et al. Prevalence of chronic hepatitis B virus (HBV) infection in U.S. households: National Health and Nutrition Examination Survey (NHANES), 1988-2012. *Hepatology*. 2016;63(2):388-97.
2. Perez-Alvarez R, Diaz-Lagares C, Garcia-Hernandez F, Lopez-Roses L, Brito-Zeron P, Perez-de-Lis M, et al. Hepatitis B virus (HBV) reactivation in patients receiving tumor necrosis factor (TNF)-targeted therapy: analysis of 257 cases. *Medicine (Baltimore)*. 2011;90(6):359-71.