



Current Issues in Liver Diseases

Challenges in Liver Patients

Improvement of treatment in HBV patients

Improve management of end-stage liver disease

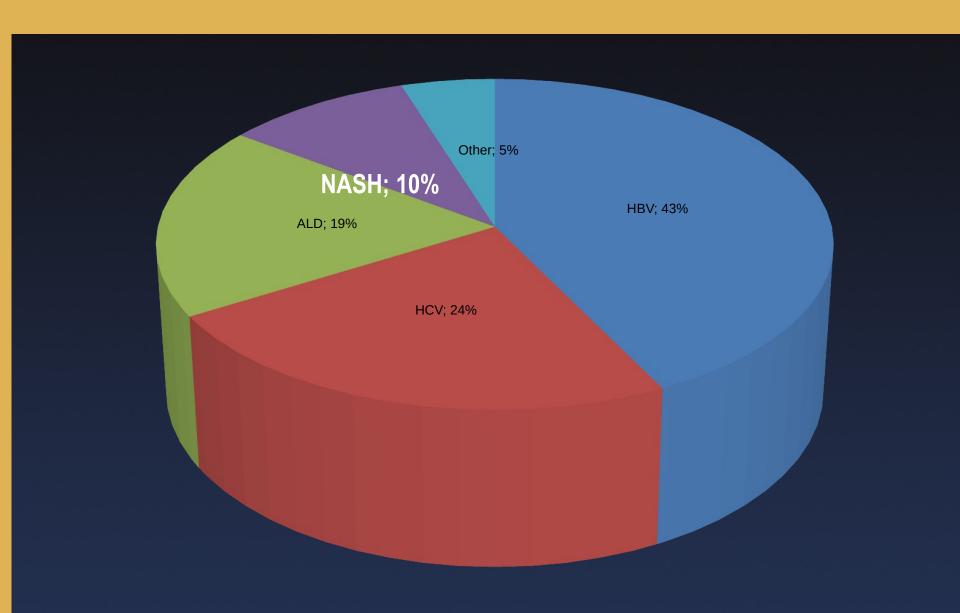
The future of liver transplantation

Optimal management of HCC

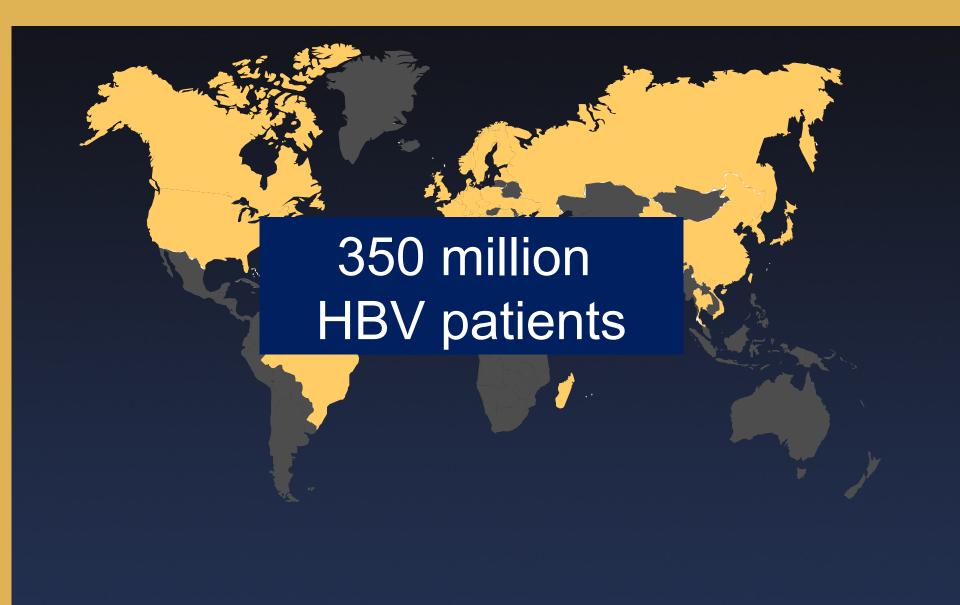
Hepatitis B

THE COME BACK

Distribution of Causes of CLD



Hepatitis B: Very High Prevalence



HBV is Coming Back

Researchers and Investments focus now on HBV

- High prevalence (350 million carriers / >600 000 deaths/year)
- More contagious than HCV (vertical transmission)
- Increased prevalence in countries welcoming immigrants
- More complex virus (ccc DNA and integration of DNA)
- More complex disease (from inactive carriers to cirrhosis)

HBV is Coming Back

- Current therapies: remission and not cure
- Significant cost (indefinite therapy)
- HBsAg loss is the ultimate end-point
- HBsAg loss=clinical cure with improved outcome
- HBsAg loss rare with NUCs
- Persistence of cccDNA
- 2 innovative concepts:
 - qHBsAg
 - Combination therapy PEG IFN+NUC

Innovative Concept: qAgHBS

Standardized and simple test

Identification of inactive carriers

Assessment of severity of liver disease

Probability of HBsAg loss

NPV 97%: HBsAg decline>1log at 12 weeks

Indication of treatment

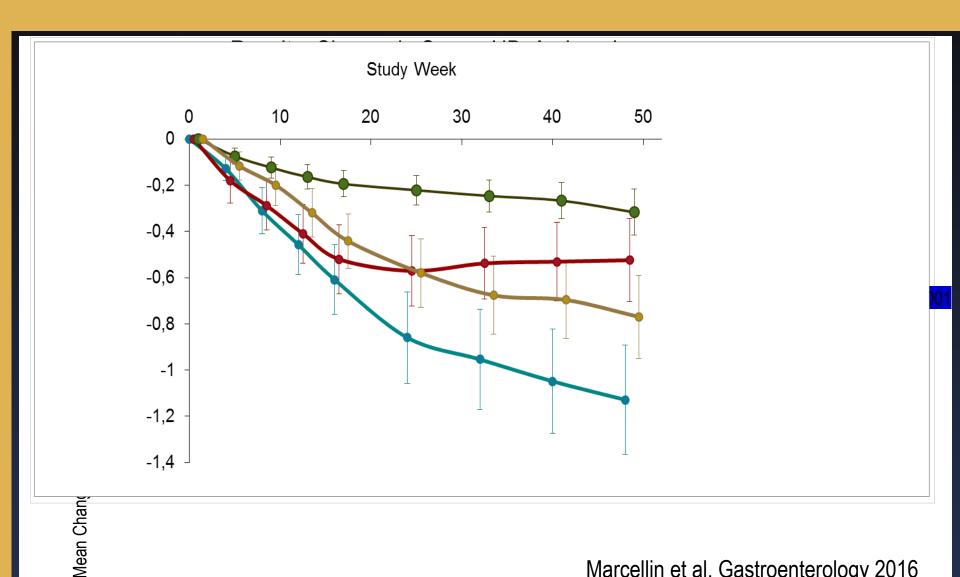
Choice of the drug: IFN Peg vs Nuc

When to stop NUCs?

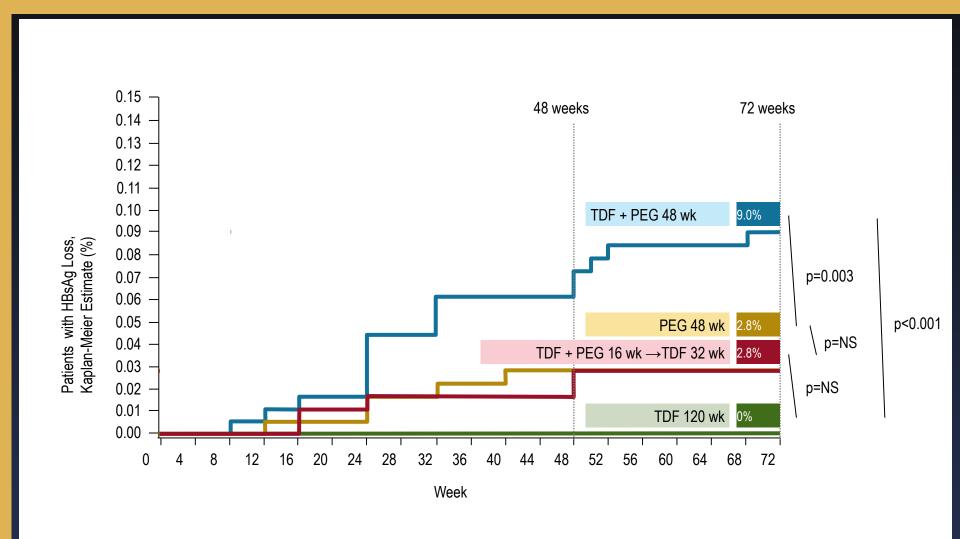
Innovative Concept: PEG IFN + NUC

Proof of concept of combination
Accelerates HBsAg decline
Increases HBsAg loss
Good tolerance and safety
Silmutaneous better than add on?
Duration of treatment?

On-Treatment Changes in HBsAg Levels at Week 48



Results: HBsAg Loss Over Time (Week 72)



Marcellin et al. Gastroenterology 2016

Future Therapeutic Innovation Pipe Line

- Early stage development
- More potent NUCs
- New immunomodulators
- New antiviral coumpounds acting on different targets (receptors, proteins, capside, cccDNA ...)

TRIPLE THERAPY

TODAY INDIVIDUALIZED TREATMENT

TOMORROW COMBINATION

Triple therapy in 5 years?