Ospidéal Ollscoile Phort Láirge
University Hospital Waterford

IDSI Infectious Diseases Society of Ireland

CLINICAL AUDIT · UNIVERSITY HOSPITAL WATERFORD

Treatment & Monitoring of Chronic Hepatitis B — An Audit Against EASL 2017 Guidelines

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EASL 2017 · Retrospective Audit · Chart Review · NIMIS / TPRO · ID OPD

Aim

Assess compliance with EASL 2017 guidelines for investigation, treatment & monitoring of chronic hepatitis B at UHW - and identify gaps to improve patient outcomes, prevent HCC, and guide future audit cycles.

85%	607	96%	100%	0%
Of cases are from endemic countries	Cases of hepatitis B notified in Ireland 2024	Chronic infection 2% acute, 2% undetermined	HBV DNA / ALT / AFP screening compliance	Only non invasive screening methods

BACKGROUND

Why HBV matters

- Chronic HBV is a major global health burden with significant morbidity & mortality
- HBV DNA level = strongest predictor of disease progression

Viral suppression leads to:

- Lowers HCC Risk
- Reduces Fibrosis & Cirrhosis
- Improves Survival

HBsAg loss = functional cure. Regular audit ensures alignment with evolving evidence.

METHODOLOGY

Design & data

01 Study Design — Retrospective 12-month clinical audit

02 Setting — Infectious Diseases OPD, University Hospital Waterford

03 Data Sources — Chart review, lab results, NIMIS, TPRO

04 Cohort — n = 13 adult patients with chronic HBV; demographics assessed

Audit standard: EASL Clinical Practice Guidelines 2017

TREATMENT

who was treated?

n = 13 patients

- 23% Treated (EASL Std 5)
- 77% Monitored, not treated

- Only three patients met the treatment criteria
- The indications to start treatment for the three patients were based on standard 5
- Whether patients were started on treatment or surveillance was in accordance with the EASL guidelines with 100% adherence

"No treatment" = appropriate evidence-based clinical decision, not a gap.

SCREENING & MONITORING COMPLIANCE (N = 13)

Results vs EASL 2017

Parameter	Compliance
HBV DNA, ALT & Alpha-Fetoprotein (AFP)	100%
HIV & Hepatitis C Co-infection Screening	92%
Hepatitis A & D Co-infection Screening	~70%
AST Annual Monitoring	70–77%
Imaging within 12 Months (US / FibroScan)	60%

≥90% Excellent · 70–89% Adequate · <70% Needs Improvement

Target: 100% for all parameters

EASL STANDARDS 1–5

1. HBV DNA >2,000 IU/mL + ALT above upper limit of normal and/or at least moderate level of necroinflammation or fibrosis
2. Compensated or decompensated Cirrhosis with any detectable HBV DNA level regardless of ALT level
3. HBV DNA >20,000 IU/mL + ALT >2x ULN regardless of degree of fibrosis
4. Patients > 30 years old with HBeAg-positive chronic infection and high HBV DNA level regardless of ALT or severity of fibrosis
5. HBeAg-positive or HBeAg-negative with family history of HCC or Cirrhosis and extrahepatic manifestations

STRENGTHS

What went well

100%	92%	3/3
Core HBV Screening	HIV & HCV Screen	Eligible patients treated

- HBV DNA, ALT, AFP — **100%** screened at baseline
- All eligible patients received antiviral therapy
- Patients not requiring treatment are on appropriate surveillance schedule 3, 6, 12 months
- Effective non-invasive screening — FIB-4, FibroScan, USS
- Strong guideline-based clinical decision-making throughout

IDENTIFIED GAPS

where to improve

- **60% — Imaging Coverage** — Only 60% had imaging within 12 months — lowest compliance area
- **~70% — Hep A & D Screen** — Viral co-infection screening incomplete for some patients
- **70-77% — AST Monitoring** — Annual liver enzyme surveillance incomplete in subset
- **92% — HIV Screening** — 1 patient missed — small but addressable gap

Key gap: Imaging pathway access needs a structured referral process and recall system.

COHORT PROFILE

clinical picture

LOW	LOW	0
Viral Activity	Fibrosis Burden	Cirrhosis / HCC Family Hx

- HBV DNA suppression = cornerstone of antiviral therapy
- Most of our patients were between 41 - 60 years old
- Majority: low viral activity → appropriate surveillance only

Cohort reflects a low-activity HBV population — reinforcing that monitor-not-treat is correct management.

CONCLUSION

Overall, the audit demonstrates strong, safe, guideline-driven care. Core HBV markers screened in 100% of patients. All eligible patients appropriately treated. Patients not requiring treatment are on structured surveillance. Non-invasive screening adopted throughout.

100% Core Screening ✓ · 0% Biopsy ✓ · 60% Imaging within last year ✗

RECOMMENDATIONS

1. Imaging recall pathway for all patients
2. Standardised monitoring proforma/checklist
3. Ensure 100% viral co-infection screening
4. Patient education on treatment & follow-up
5. Assign follow-up coordinator particularly for patients on antiviral therapy
6. Annual AST & AFP checks for all patients
7. Annual re-audit as planned

DIAGNOSTICS

non-invasive approach

0% Biopsy

No invasive liver biopsy performed as there was no diagnostic uncertainty, discordant non invasive test results or presence of liver related comorbidities

- FibroScan — Liver stiffness measurement
- Ultrasound — Abdominal imaging
- FIB-4 Score — Serum fibrosis index

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Reference: EASL 2017 Clinical Practice Guidelines on the Management of Hepatitis B Virus Infection. J Hepatol. 2017;67(2):370-398.