



# Waiting for ANA: Evaluating the impact of delayed results for hospitalised patients with undifferentiated acute hepatitis

Irene Lu<sup>1</sup>, Velda Lim<sup>1</sup>, Tim Levar<sup>1</sup>, Sarah Taylor<sup>1</sup>, Jacoba van Wees<sup>1</sup>, Mani Suleiman<sup>1</sup>, Logan Gardner<sup>1</sup>, Siddharth Sood<sup>1,2</sup>

1. Department of Gastroenterology, Northern Health, Epping, Victoria, Australia  
2. The University of Melbourne, Melbourne, Victoria, Australia



Northern Health

## INTRODUCTION & AIM

Autoimmune hepatitis (AIH) and drug-induced liver injury (DILI) commonly present with overlapping features. Anti-nuclear antibody (ANA) supports AIH, however delayed turnaround times (TAT) may influence inpatient investigation and management. We evaluated ANA TAT and its association with diagnosis, liver biopsy utilisation, treatment initiation, and hospital length of stay (LOS).

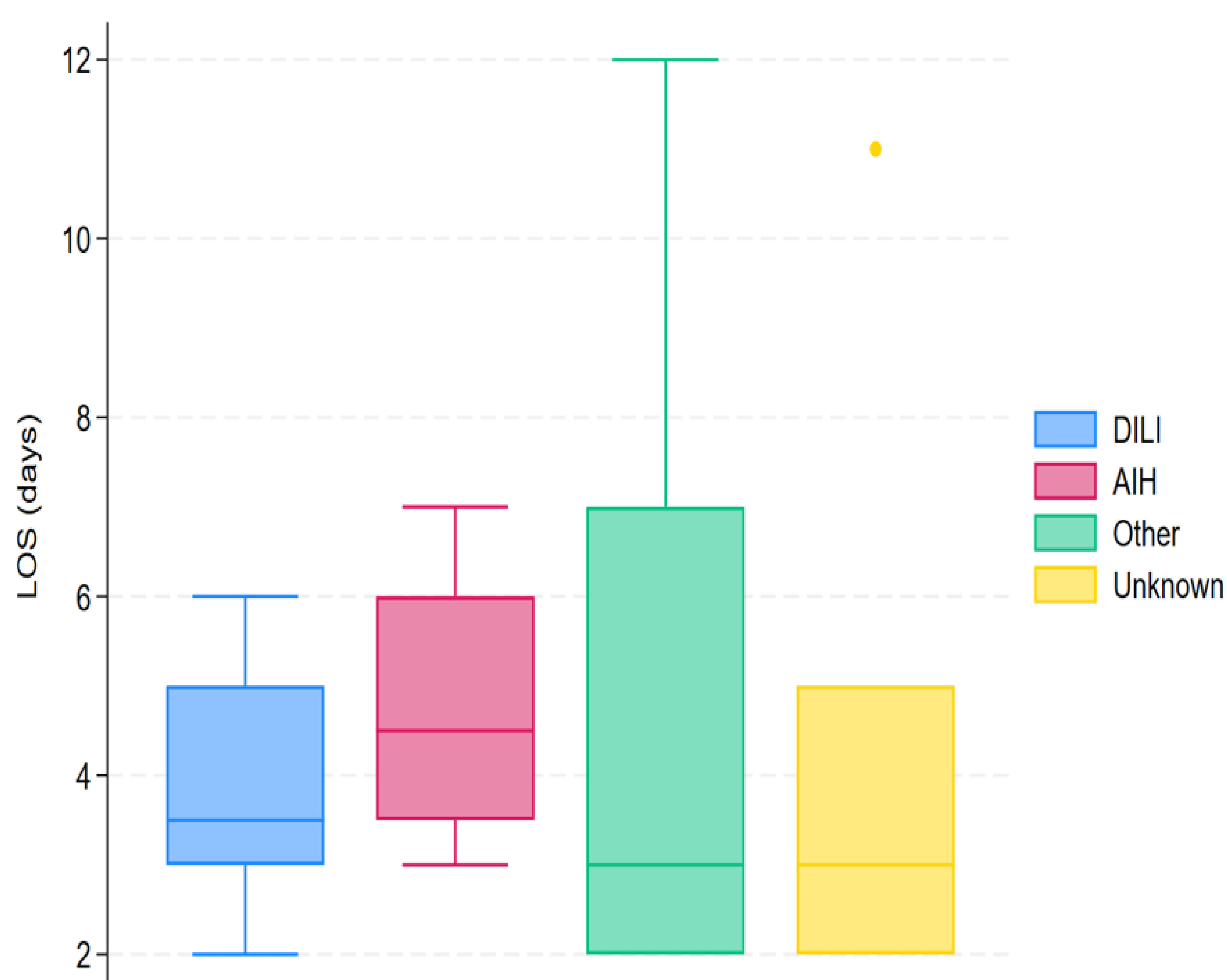
## METHODS

A retrospective single-center study performed on adults admitted between January 2020 and January 2025 with undifferentiated hepatitis and ALT>4x upper limit of normal. Comparative analyses were performed on collected data – biochemical results, ANA status and TAT, final diagnosis, liver biopsy utilisation, immunosuppression initiation, and LOS.

## RESULTS

267 patients were initially identified through medical records, with 28 patients meeting inclusion criteria across the 5-year period. Median age was 51.3 years and 57% were female. 36% of these patients had ANA positive test with laboratory positive reporting cut-off 1:160. Of these 29 patients, the final diagnosis was DILI in 29%, AIH in 14%, other (e.g. primary sclerosing cholangitis, EBV, etc) 25%, and unknown in 32%.

**Figure 1: Comparison of hospital length of stay across diagnostic groups** DILI, AIH, Other, Unknown



The median ANA TAT was 97.4 hours (IQR 74.9-138.4). When grouped into TAT <96 hours (n=13) versus >96 hours (n=15), the median LOS (5 and 3 days, respectively) did not differ significantly amongst groups (p=0.06). Seven patients (25%) underwent liver biopsy. Patients undergoing biopsy had a longer total LOS (median 5.0 vs 3.0 days, p=0.012).

Patients with AIH demonstrated the longest median LOS; however, LOS did not significantly differ between final diagnosis (see figure 1), likely reflecting the multifactorial determinants of inpatient admission duration.

## CONCLUSION

Hospitalised patients with undifferentiated acute hepatitis experience prolonged ANA TAT, with median delays approaching 4 days. The absence of an observed LOS difference from delayed ANA results may reflect multifactorial determinants of inpatient stay and the fact that clinical decisions and liver biopsy pathways are frequently made prior to ANA availability.