

Death after psychiatric contraindications to urgent liver transplant following paracetamol overdose: an 18-year cohort study

Background

Paracetamol overdose (POD) is the most common cause of acute severe liver injury (ASLI) in the UK.¹ Without urgent orthotopic liver transplant (OLT), mortality is high, but the introduction of OLT has significantly improved short- and long-term survival.² Psychiatric assessment is an important part of the work-up for OLT. It is time-pressured and often undertaken by liaison psychiatrists without transplant experience. In some cases, assessment identifies absolute psychiatric contraindications (APCIs) precluding transplant in an otherwise medically suitable patient. It is unknown how often this occurs, and this may provoke anxiety in assessors.

Aim

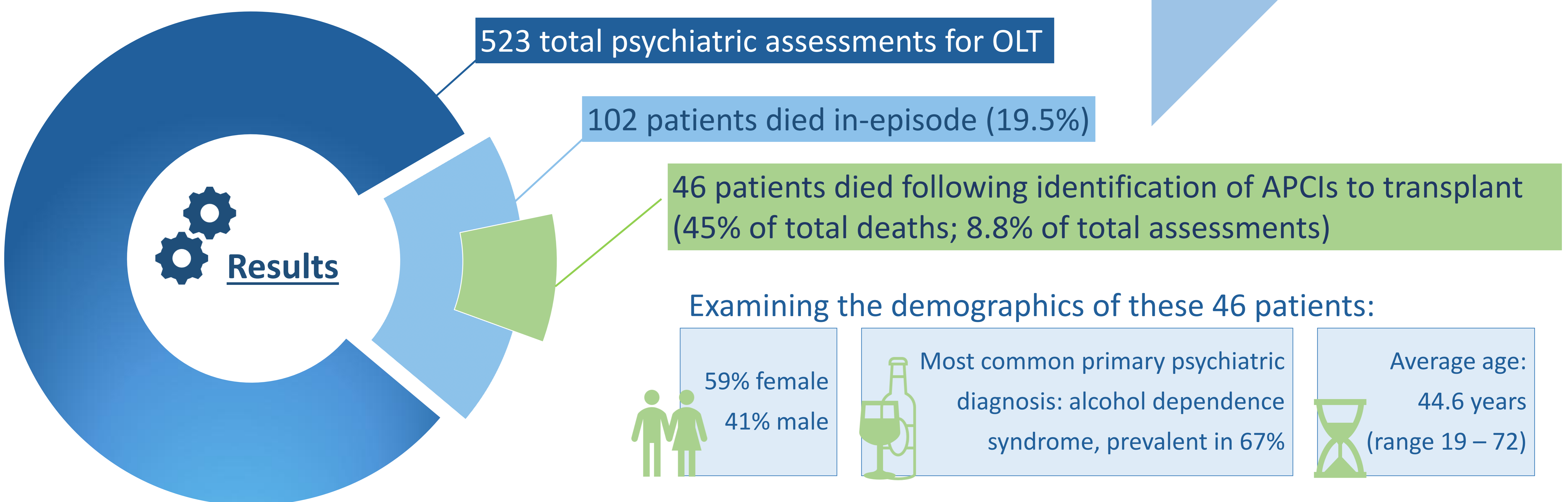
To determine the number of patients presenting with ASLI secondary to POD who died after APCIs to OLT were identified, who were otherwise medically suitable for transplant.

Methods

This single-centre retrospective cohort study examined patients with POD-induced ASLI referred to the Scottish Liver Transplant Unit (SLTU) for assessment for OLT between 2006–2024.

Patients were identified from a departmental database and were included if they had ASLI from suspected POD, received psychiatric assessment for OLT and died before discharge.

Patient records were reviewed for APCIs to transplant, age, sex, and primary psychiatric diagnosis. We calculated the proportion of patients assessed for whom APCIs precluded transplant, resulting in death.



Discussion

Psychiatric assessments for emergency transplant suitability are, by the nature of their presentation, often limited by multiple clinical and non-clinical pressures. Our finding that almost 9% of patients assessed for OLT died because a psychiatric contraindication precluded transplant highlights the gravity of the decision to be made. These assessments are, therefore, likely daunting for inexperienced psychiatrists. Detailed medical criteria exist to help physicians identify patients who are physiologically suitable for urgent transplant but there are no comparable national or international guidelines for psychiatric assessment.³ Partly in response to a 1997 Fatal Accident Enquiry, SLTU codified psychiatric contraindications to urgent liver transplant, leading to the development of unit-specific guidance that remains in place today (see opposite). Though other centres may use a similar, if less explicit approach, the lack of standardised guidelines leaves room for variation in practice and therefore potential regional inequality within the UK and internationally.

SLTU Absolute Contraindications to OLT:

- ≥5 lifetime episodes of deliberate self-harm
- Current substance dependence or active, chaotic, severe substance misuse
- Chronic, severe, poor-prognosis mental disorders
- Repeated non-compliance with medical/psychiatric care
- Capacitous patient refusal of transplant

Conclusion

This is the first UK study to report the frequency at which patients with POD-induced ASLI, who are otherwise medically fit for transplant, die after OLT is declined because of psychiatric contraindications. This occurred in almost 9% of patients assessed for OLT, with these deaths making up 45% of all the in-episode deaths in our cohort. This raises the question of whether the creation of standardised guidelines of psychiatric contraindications to liver transplant might help support clinicians in making these difficult decisions and potentially reduce any inter-unit variability in transplant decisions. There is a clear need for intra- and inter-national comparisons and evidence-based guidelines in this challenging area of practice.

References

- Rotundo L, Pysophoulos N. Liver injury induced by paracetamol and challenges associated with intentional and unintentional use. *World J Hepatol.* 2020;12(4):125-136.
- Germani G *et al.* Liver transplantation for acute liver failure in Europe: outcomes over 20 years from the ELTR database. *J. Hepatol.* 2012; 57(2):288-296.
- O'Grady JG, Hayllar KM, Williams R. Early indicators of prognosis in fulminant hepatic failure. *J. Gastroenterol.* 1989; 97(2): 439-45.