

TRANSPLANTATION

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The allocation of liver grafts to patients with end-stage liver disease is dominated by three ethical principles: equity (need), utility (usefulness) and transplant benefit. The equity model gives prioritisation for sickest first, the utility prioritises the patient with the best expected outcome from transplantation and transplant benefit prioritises the patient with the greatest difference in expected survival with and without transplantation. The last balances both equity and utility and is expected to minimise mortality and maximise survival for the overall patients listed for transplant. TRANSPLANTATION

The outcomes after LT depend on the underlying liver disease; the best results are seen in patients with CLD. Patients undergoing transplantation as a result of ALF have a higher mortality in the early post-transplantation period because of multiorgan failure, but those who make a satisfactory recovery have good long-term liver allograft survival. In the UK, unadjusted 1-, 5- and 10-year patient survival for adult patients receiving their first elective transplant is 94%, 84% and 72%, respectively. For super-urgent transplant, the survival is less: 90%, 82% and 70%, respectively (NHSBT Annual Report September 2020). Conversely, patients transplanted for tumour have a very good early outcome but ultimately fare less well because of recurrent malignancy. As with other solid organ transplants, chronic immunosuppression has its effect on the LT recipient with increased risk of infections, metabolic syndrome and cancers. The common causes of death in post-LT recipients after 3 years of transplant are mostly non-transplant related, such as malignancy or cardiovascular disease, and are less due to chronic rejection and recurrent primary liver disease. TRANSPLANTATION

Donor shortage is the key issue in LT. The biggest challenge ahead for the LT community will be to implement strategies that will overcome donor organ shortage, but at the same time maximise the long-term outcomes of the grafts transplanted. Reducing the waiting list mortality will involve bridging the gap between the demand and availability. Optimising the organ quality using newer technologies such as machine perfusion and 'growing livers in the lab' are exciting prospects that could overcome the chronic organ shortage.

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