Introduction:
Liver transplantation being a major abdominal surgery, may have postoperative complications which may be life threatening and require ICU readmission. We conducted this retrospective observational single centre study to identify incidence, causes and outcomes of ICU readmission after living donor liver transplant (LDLT).

Methods:
This retrospective observational study was conducted in Ain Shams University Specialized Hospital on 335 adult patients (≥ 18 years old) who underwent their initial LDLT from 2008 to 2018 after approval of Institutional Review Board and written informed consent from patients or 1st kin. Patients demographic data, preoperative variables, intraoperative variables, postoperative stay and complications, causes, incidence and outcomes of ICU readmission were recorded. Readmission is defined as ICU readmission within ≤ 3 months after initial ICU discharge. The primary endpoints were the incidence and causes of ICU readmission and secondary endpoint was one year survival.

Results:
A detailed review of 335 patients was made, 26 patients (7.76%) were readmitted, 4 patients (1.19% of total patients) were readmitted twice due to mesothelioma, sepsis, CVS and graft failure. Out of 26 readmitted patients, 11 patients (42.3%) were discharged and 15 (57.7%) died and 25% of twice readmitted patients discharged and 75% died. The main causes of death were renal failure, hematemesis, sepsis, CVS, pulmonary complications, vascular complications and graft failure.

Conclusion:
Causes of ICU readmission post LDLT were variables, may be related to preoperative comorbidities, surgical complications, immunosuppression, sepsis and other causes. Readmission carries a greater risk of bad outcome. The more the times of ICU readmission the worse the prognosis.