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Discharge Readiness after Liver Transplant is Not One-Size-Fits-All

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Accelerated discharge and enhanced recovery programs have had modest success in solid organ transplant,¹⁻³ with liver transplantation (LT) being a difficult environment in which to implement change.

In the current issue, Brustia and colleagues developed a consensus-based checklist of criteria for safe patient discharge post-LT.⁴ They first performed an evidence-based semisystematic review of available literature on discharge post- LT and consulted with a group of 9 French experts to

define criteria for successful discharge. They identified 5 “patient-centered” and 5 “graft-centered” criteria to implement a pilot study. They discovered that many patients remain in hospital too long, adding unnecessary time (and cost) to their hospitalization. Finally, a larger group of 66 primarily French experts reviewed the checklist’s performance in the pilot study and through 3 iterations of feedback were able to achieve consensus with a final checklist of 10 discharge criteria.

The authors suggest that this standardized checklist will reduce LT outcome heterogeneity by producing a new consistent and comparable outcome. They suggest that their checklist can replace traditional metrics of recovery (e.g., length of stay) and allow for objective comparisons between transplant centers in different countries and health systems. Unfortunately, regional resource variation remains a major limitation of the “one-size-fits-all” nature of checklist medicine. In the United States, length of hospital stay post-LT is approximately 14 days, which is shorter than the 20 days described in the current report.^{5,6} This difference highlights that discharge from the hospital is likely dependent on factors outside of the control of the transplant center – factors such as availability of subacute rehabilitation, outpatient laboratory testing, and ease of outpatient follow-up. As a specific example from this checklist, waiting for stable and therapeutic tacrolimus levels can be managed with close outpatient laboratory testing. This may not be available in all places, necessitating a longer hospital stay.

An application of the checklist might be to identify when transplant recipients can be safely discharged. Its use prior to discharge could provide 2 pieces of actionable information: 1) the incidence of “over-stay” beyond the point of safe discharge, and 2) provide a baseline from which interventions to reduce medical system length of stay could be compared. Regarding “over-stay,” this report noted that 45% of patients met all criteria but stayed an average of 3 days longer than necessary often for logistical rather than medical issues.

At our center, kidney transplant recipients follow a strict protocol and are discharged on postoperative day 3. These patients must 1) have their pain controlled, 2) be able to void, and 3)

have a close lab and clinic follow-up plan. Subtherapeutic or suprathreshold tacrolimus levels are adjusted with twice weekly outpatient lab draws, and the patients are seen in person within 7 days of discharge. Recent work suggests that checklists could support an even more aggressive approach with 2-day hospital stays after kidney transplantation reported.⁷

Discharge following post-LT presents unique challenges. In the US, transplants performed for noncancer indications are often performed in decompensated, hospitalized, and high MELD score patients. Additionally, they have multiple additional comorbidities, are deconditioned, and in many cases are acutely or subacutely ill immediately prior to LT. Despite the success of checklists in kidney transplantation, LT will never be as simple as pain control, voiding, and close follow-up.

It is likely that regional variation in resource availability will be a core component of a successful individualized checklist. Settling on a “one-size-fits-all” checklist may not fit for each center and its resources. However, this report should stimulate dialogue about acceleration of discharge following LT.

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