The value of KPI’s in the transplant setting: Wits Donald Gordon Centre, Johannesburg

Jackie Thomson - Wits Donald Gordon Cellular and Immunotherapy Centre, Johannesburg, Sudafrica

Published: 2026-04-01 | DOI: 10.82098/icmed-mag.2026.06.006

ABSTRACT

In high-stakes transplant settings, traditional outcome indicators such as mortality, relapse, and graft-versus-host disease remain essential but inherently retrospective, limiting their usefulness in day-to-day clinical management. This article proposes a shift toward a lead-measure–driven KPI framework, capable of influencing outcomes before adverse events occur. Drawing on the principles of the 4 Disciplines of Execution, the author outlines a practical approach implemented in a mixed adult and pediatric transplant program in South Africa. The framework focuses on time-sensitive processes—including listing-to-transplant timelines, pre-transplant workup completion, risk assessment, and bed management—assigning clear ownership, measurable targets, and structured accountability through weekly reviews and visual dashboards. Lag measures are maintained for validation and alignment with accreditation standards such as JACIE, ensuring consistency between operational improvements and clinical outcomes. A phased implementation roadmap is presented, highlighting governance, data standardization, and team engagement as critical success factors. The proposed model demonstrates how integrating lead measures into routine practice can reduce variability, improve efficiency, and ultimately enhance patient outcomes in resource-constrained healthcare environments.

As the director of the Wits Donald Gordon Centre for Cellular and Immunotherapy, I lead a transplant program that spans pediatric and adult patients in a South African context. We are committed to JACIE accreditation, which demands rigorous governance, patient safety, and continuous improvement. Recently as I sat preparing for my next quarterly meeting, I realised that I am looking at metrics that I cannot change. Although important to know the day 30 or day 100 mortality rate it cannot be influenced because it is a lag measure. I suddenly realised that in order for me to lead my team effectively I need metics to will prevent the adverse outcome from happening. It made me think of the words of Steven Covey in his book the “4 D’s of execution” and John Doerr in his book “measure what matters” act on lead measures to change the outcome of the lag measures.

One factor that may cause inferior outcomes are delays in time to transplant after listing,

 © 2026 ICMED S.r.l.

leading to increased risk of relapse and patients moving to palliative care because of disease resistance. This is particularly evident in our setting, where resource constraints and equity considerations shape access, lead measures may offer a solution to reduce variation and ensure consistent safety and quality across patients. If I implement a system like the 4 DX we can shorten the time to transplant and hopefully improve transplant outcome.

But how do we translate that into daily practice for a high-stake mixed-population transplant service? This article outlines a practical, lead-measure driven KPI framework tailored to our centre, with concrete targets, ownership, and an implementation roadmap that foregrounds time-sensitive processes listing to authorisation, workup, and transplant—alongside pre-transplant risk assessment and bed management.

1) Why lead measures matter

Lag measures like mortality, relapse, GVHD are indispensable for validating performance, but their value materialises only after events occur. Lead measures illuminate the day-to-day processes we can influence to avert adverse outcomes, shorten time to critical milestones, and standardise care across pathways.

2) Translating 4 DX into our context

I will start by explaining the 4 DX methodology. Choose a wildly important goal (WIG), for example to reduce the one-year mortality rate of unrelated donor transplants by 5% for the period of 2026.

How do we do this? Well by choosing some subgoals for example, timely post-listing workup, pre-transplant readiness, efficient bed management to support conditioning, and transplantation without avoidable delays.

Now we choose our lead measures and assign them to the responsible team member. For instance, we can measure the time from listing to submitting the treatment plan and selecting the dates.

Let’s assume our target is 5 working days, and the coordinators are responsible for this task.

By keeping a compelling scoreboard, we can analyse this measure on a weekly basis and at our weekly huddle we can look at ways to improve this if we fall behind, this is how we keep the entire team accountable. Each member makes a weekly commitment to improve the time to transplant.

Other lead measures that might be chosen could be completion of pre-transplant risk assessment and workup before conditioning begins. Why this matters is that early risk stratification guides infection prophylaxis, conditioning planning, and resource allocation. Here our target should be 100% completed prior to conditioning start; completeness verified by an integrated checklist. Any patient missing workup within the target window triggers automated escalation and a task reallocation.

3) Lag measures for validation and accreditation alignment

While lead measures drive daily action, lag measures remain essential to confirm improvements and sustain accreditation.

Our key lag metrics remain

- 100-day and 1-year transplant-related mortality

- Acute and chronic GVHD incidence

- Relapse-free survival for malignant diseases

- Length of stay and 30-day readmission rates

- Patient/parent-reported outcomes and satisfaction

We will continue to use lag data to validate the effectiveness of lead measures, identify residual bottlenecks, and recalibrate targets as needed.

4) Governance, data architecture, and implementation

If we are to implement such a system, we will need to take time to ensure that we have an information system that will accurately collect the data we need for the metrics, but most importantly we will need to standardise and agree on the definitions of e.g. “authorisation,” “workup start,” “on-time release,” and ensure consistent data capture across pediatric and adult pathways.

We will also need to be clear on the different roles and responsibility; I have often seen delays in action because we think we have assigned the responsibility but in fact we have not and nobody ends up doing the task. It is very helpful if you have an IT platform that can assign such tasks and tracks delays in tasks, our team is currently working on implementing such a system. Most importantly we should assign owners for each lead measure with explicit accountability and

escalation paths.

Another thing to consider is to build a dashboard that is visible for the entire time and have clear and simple colours to tell us how we are doing, for example red, amber and green. We will need to communicate at our weekly execution huddles to review lead measures and a monthly leadership review to assess progress, share learning, and recalibrate.

Lastly but possibly the most important hurdle to this plan is the buy in from the team. If they do not buy into the wildly important goal and the subgoals, lead measures and weekly huddles, they may see the scoreboard as a punitive tool which is used to embarrass them. Therefore, it is important to get buy in from the entire team prior to the implementation.

5) Implementation roadmap (phased)

Here is an example of the possible implementation roadmap:

- Phase 1 (Weeks 1–4): Define 1-2 WIGs and select 4–6 lead measures per WIG. Finalise data definitions, owners, baseline performance, and data collection workflows.

- Phase 2 (Weeks 5–10): Build a simple scoreboard; run a 6–8 week pilot in a single unit (e.g., the adult SCT service) to test feasibility and gather frontline feedback.

- Phase 3 (Weeks 11–20): Expand to the pediatric unit; harmonize measurements; institute weekly execution huddles and monthly performance reviews at the center level.

- Phase 4 (Weeks 21+): Align with external reporting, JACIE audits, and continuous improvement cycles; integrate KPI findings into annual quality plans and accreditation readiness activities.

Leading a dual-population transplant unit demands a disciplined, front-line focused approach to performance management. By centring our KPI framework on lead measures especially time-to-listing authorisation, pre-transplant risk assessment, workup readiness, and bed management we can translate Covey’s and Doerr’s wisdom into tangible improvements for both pediatric and adult patients. A simple, phased implementation plan, anchored in strong governance and clear ownership, will keep us on track for ongoing accreditation and, most importantly, better patient outcomes.

References

- Covey SR, McChesney CS, Huling J. The 4 Disciplines of Execution.

- Doerr J. Measure What Matters.

Suggested citation:

Thomson J. The value of KPI’s in the transplant setting: Wits Donald Gordon Centre, Johannesburg. ICMED Magazine. 2026;2026(6). doi:10.82098/icmed-mag.2026.06.006

 © 2026 ICMED S.r.l.