

A photograph of several surgeons in an operating room, wearing blue scrubs, masks, and hairnets, looking down at a patient. The scene is illuminated by bright surgical lights.

# How Indian Hospitals Are Using OR Analytics to Reduce Idle Time

by Editorial Team

An operating theatre is the most expensive square footage in most hospitals, and the losses happen quietly. Lists start late, turnover drags, a case gets cancelled for lack of operating time, and none of it shows up as a line item called "idle time." It just hides inside cancellation rates and overtime bills.

## **The data makes the case**

A prospective audit at a North India tertiary teaching centre, published in the Journal of Anaesthesiology Clinical Pharmacology, found 86% OR utilisation alongside a 22.5% case cancellation rate, mostly for lack of operating time. Cancellation rates ranged from 40% in one OR to zero in another at the same hospital. A separate study at O.P. Jindal Institute in Hisar found utilisation of 77.14% across nine tables. The gap between rooms, not the average, is where the recoverable capacity sits.

## Five numbers worth tracking together

1. OR utilisation rate, above 80% is efficient, below 50% signals underuse
2. Turnover time, the benchmark median sits around 28.5 minutes; one Hyderabad ESIC study reported 13.73 minutes
3. First-case on-time start, below 50% is a red flag
4. Cancellation rate, and specifically why
5. Prime-time utilisation, cases starting within 15 minutes of schedule

Track these together, not separately. Utilisation alone lies: that 86% figure looks fine until you see the 22.5% cancellation rate sitting next to it.

## Where integration changes the picture

A clipboard audit changes behavior just by being an audit. Staff perform differently in an audit week than any other week. An integrated OR sidesteps this because it logs patient-in, anaesthesia start, incision, patient-out, and room-ready automatically, as a byproduct of the case itself, not as someone's extra task.

That data becomes useful the moment it's live. A perioperative lead can see mid-morning that OR 4 is 45 minutes behind and move an afternoon case to OR 7. Over weeks, the same feed exposes the real bottlenecks: a surgeon whose case durations are chronically underscheduled, a CSSD delay holding up instrument sets, a late start tied to porter turnaround.

The practical moves hospitals are making: define scheduled start as patient-in-room time so there's no ambiguity about who's late, schedule off real historical case durations instead of optimistic ones, standardise turnover steps to cut variance, and correlate utilisation against CSSD and staffing data to find the actual constraint.

One benchmarking study in Arthroplasty Today, working from anaesthesia-prep under 11 minutes and turnover under 22 minutes, found 98.3% of ORs completed 4 cases within 8 hours, and 52.5% completed 5. Discipline against a number, not heroics, drove that.

## **Why this matters more under PMJAY**

For a high-volume hospital running PMJAY lists, OR capacity is the binding constraint, not patient demand. The North India audit's biggest cancellation driver, lack of operating time, is exactly the loss that better scheduling and tighter turnover recover. Every minute of idle time clawed back is throughput that's already funded.

## **Two cautions**

Benchmarks aren't universal. A turnover target for day-case lipoma excisions has no business being applied to joint replacement, and academic units run a different rhythm than for-profit ones. Set targets by case type. And manual audits will always undercount, because measured behavior isn't normal behavior. Automated data doesn't have that problem, and it keeps working after the audit team has gone home.

Esbee Dynamed connects OR integration to utilisation and turnover analytics, so the numbers that matter are captured as a byproduct of surgery rather than a manual task. If your team is benchmarking OR efficiency, we're happy to compare notes.

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*Esbee Dynamed specialises in OR integration and connected surgical instrument tracking solutions. To learn how we can support your operating theatre, contact our team.*

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