Overbooking fixes no-shows but creates waits

Fictional sample · Dr. Lena Ortiz · 15-minute conference talk

Late-morning overbooking in two outpatient clinics

Missed appointments leave clinicians idle

- A no-show is an empty slot nobody can refill at short notice
- Clinics overbook to keep clinicians busy

Overbooking moves the cost to patients

- Two patients booked into one slot means one of them waits
- The waiting room absorbs the risk the schedule avoided

48,200 appointments, two clinics, 14 months

De-identified booking records

48,200	2	14
APPOINTMENTS	CLINICS	MONTHS
All booked visits in the period	Internal medicine; dermatology	Same months for both clinics

Three rules we compared

Flat

Extra bookings spread evenly across the day. Current practice and our baseline.

Front-loaded

Extra bookings in the first slots of the morning.

Late-morning

Extra bookings only in the last two morning slots.

Late-morning overbooking cut average wait from 31 to 22 min

Average patient wait, both clinics combined

31 min

FLAT RULE

Current practice (baseline)

22 min

LATE-MORNING RULE

Same patients, same extra bookings

Idle time stayed within 3% of baseline

Clinician idle minutes per clinic day

41 min	42 min
FLAT RULE	LATE-MORNING RULE
Baseline	+2.4% vs baseline

The rule fails when visit lengths vary widely

Clinic A: internal medicine

Similar visit lengths. Average wait fell from 30 to 17 minutes.

Clinic B: dermatology

Procedures mixed with short consults. Average wait fell only from 32 to 30 minutes.

What a clinic manager would change on Monday

1. Move extra bookings to the last two morning slots
2. Keep the rule only where visit lengths are predictable
3. Review waits and idle time after four weeks

What we have not tested yet

- Clinics with same-day booking
- Afternoon sessions
- Specialties with long, variable procedures

Put the extra bookings where the slack already is

Late-morning overbooking: shorter waits, same idle time, if visit lengths are predictable

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A1 · Rule definitions

Backup slide

RULE	WHERE EXTRA BOOKINGS GO	EXTRA BOOKINGS PER SESSION
Flat	Spread evenly across all slots	Same in all three rules
Front-loaded	First three morning slots	Same in all three rules
Late-morning	Last two morning slots only	Same in all three rules

A2 · Clinic profiles

Backup slide

	CLINIC A	CLINIC B
Specialty	Internal medicine	Dermatology
Appointments in data	29,400	18,800
Visit types	Mostly standard consults	Consults mixed with procedures

A3 · Wait-time change by visit type

Backup slide · Late-morning rule vs flat rule

CLINIC	VISIT-LENGTH SPREAD	WAIT BEFORE	WAIT AFTER
A: internal medicine	Narrow	30 min	17 min
B: dermatology	Wide	32 min	30 min