

# Optimization Recommendations to Reduce Appointment No-Shows

## 1. Send SMS Reminders Exactly 1 Day Before the Appointment

Our analysis shows that patients who received SMS reminders were significantly more likely to attend their appointments. Timely reminders help reduce forgetfulness, especially for working individuals and older patients.

Action: Implement automated SMS reminders to be sent precisely 24 hours before the scheduled appointment.

## 2. Avoid Scheduling Elderly Patients on Mondays

A higher no-show rate was observed among patients aged 60+ when their appointments were scheduled on Mondays. This may be due to post-weekend fatigue, transport unavailability, or routine disruption.

Action: Prioritize scheduling elderly patients later in the week (Tues-Fri) when possible.

## 3. Overbook Slots with High No-Show Probability

Our machine learning model predicts which patients are likely to miss their appointments. These predicted no-shows can leave gaps in the schedule. To optimize doctor availability and reduce wasted time, consider double-booking or slightly overbooking such slots.

Action: Use the prediction score to strategically overbook high-risk time slots.

## 4. Prioritize Morning Slots for Patients with Transportation Barriers

Patients from certain neighborhoods or without access to reliable transport tend to miss more appointments-especially in the afternoon. Traffic, long distances, or fatigue may be factors.

Action: Offer these patients appointments during the morning hours when travel is easier and more consistent.

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## Goal

These data-driven recommendations are aimed at boosting attendance, improving operational efficiency, and delivering better care through smarter scheduling.