# Veterinary Clinic – Reminders Engine Spec

This document specifies the design for the reminders system that will notify pet owners about upcoming visits, preventive care due dates, and overdue events.

## 1) Overview

- Centralized engine for sending reminders across channels (WhatsApp, SMS initially).  
- Sources:  
 • Next visit dates (from visits table).  
 • Preventive care due dates (vaccination, deworming, tick/flea).  
 • Overdue preventive care.  
 • Custom events (certificates, lab result collection, etc.).  
- Supports daily call sheet generation for staff follow-ups.

## 2) Data Model

- reminders\_queue:  
 • id  
 • unique\_id (pet)  
 • owner\_id  
 • due\_date  
 • type (visit, vaccine, deworm, tickflea, custom)  
 • subtype (optional – e.g. Rabies, DHPP)  
 • status (pending, sent, snoozed, skipped, failed)  
 • channel (whatsapp, sms, both)  
 • last\_attempt\_at  
 • attempts\_count  
- reminder\_templates:  
 • id, type, subtype, channel, language, template\_text (merge fields allowed).

## 3) Scheduling Logic

- Each source event (next visit, preventive due) generates one or more reminder queue items.  
- Cadence (default):  
 • T-7 days before due  
 • T-1 day before due  
 • T+3 days after due (overdue)  
 • T+14 days after due (escalation)  
- Customizable per clinic.  
- Preventive care rules use due\_date from preventive\_items table.  
- Next visit reminders use next\_visit\_date from visits table.

## 4) Sending Process

- Daily job scans reminders\_queue for pending items whose send date = today.  
- For each item:  
 • Merge fields: {OwnerName}, {PetName}, {Species}, {DueDate}, {ClinicName}, etc.  
 • Send via configured channel API (WhatsApp Business API, SMS gateway).  
 • Update status = sent, log timestamp.  
- Retry failed sends up to N times (configurable).

## 5) Daily Call Sheet

- Separate report generated daily (days customizable, default 3 days ahead).  
- Lists all appointments in that window: Owner name, Pet name, Mobile(s), Appointment date/time, Type.  
- Used by staff to manually confirm by phone.  
- Export as CSV/PDF.

## 6) Snooze / Skip

- Snooze: postpone reminder by X days; keeps status = pending.  
- Skip: cancel this reminder; requires reason.  
- Actions available in preventive care schedule view and visit page.

## 7) UI Components

- Reminders dashboard:  
 • Tabs: Pending, Sent, Failed, Snoozed, Skipped.  
 • Filters: date range, type, channel.  
 • Bulk actions: resend, snooze, skip.  
- Patient dashboard widget:  
 • Shows upcoming reminders for that pet/owner.  
 • Allows inline snooze/skip.

## 8) Permissions

- Front desk: view, snooze, skip reminders; view call sheet.  
- Doctor: same as front desk.  
- Admin: all + edit templates, adjust cadence, resend failed.

## 9) API Endpoints

- GET /api/reminders?status=pending&date=YYYY-MM-DD  
- POST /api/reminders/{id}/send  
- POST /api/reminders/{id}/snooze  
- POST /api/reminders/{id}/skip  
- GET /api/reminders/call-sheet?days\_ahead=N  
- GET /api/reminders/templates  
- PATCH /api/reminders/templates/{id}

## 10) Background Jobs

- Daily reminder processor (cron): picks due reminders, sends, logs status.  
- Daily call sheet generator.  
- Optional hourly run for higher-frequency cadences.