

Patient Follow-up Reminder System Setup

Overview

The reminder system has been integrated into your Smart Patient Follow-up System. It provides automated email/SMS reminders to patients one day before their scheduled follow-up appointments.

New Features Added

1. Database Tables

Run the following SQL file to create the necessary tables:

```
bash

mysql -u your_username -p smart_patient_followup < reminders.sql
```

2. Backend API Endpoints

New reminder routes have been added to your backend:

- `GET /api/reminders/dashboard` - Get reminder dashboard data
- `GET /api/reminders/upcoming` - Get patients needing reminders (for n8n)
- `POST /api/reminders/create` - Create a reminder record
- `PUT /api/reminders/update-status/:id` - Update reminder status
- `GET /api/reminders/logs/:reminderId` - Get reminder logs
- `POST /api/reminders/send-manual` - Trigger manual reminder

3. Frontend - Reminder Status Dashboard

The reminders.html page now shows:

- **Status Overview:** Total reminders sent, pending, failed
- **Three Categories:**
 - Overdue follow-ups (past due date)
 - Today's follow-ups
 - Upcoming follow-ups (next 7 days)
- **For Each Patient:**
 - Patient details and condition
 - Follow-up date

- Reminder status (Sent, Pending, Failed, No Reminder Set)
- Contact options (Call/Email buttons)
- Manual reminder send button

4. n8n Workflow Setup

Import the Workflow

1. Open your n8n instance
2. Go to Workflows > Import
3. Import the `patient_reminder_workflow.json` file

Configure Credentials

You'll need to set up the following credentials in n8n:

1. MySQL Database

- Host: localhost (or your DB host)
- Port: 3306
- Database: smart_patient_followup
- User: your_db_user
- Password: your_db_password

2. SMTP Email (for email reminders)

- Host: your_smtp_host
- Port: 587
- User: your_email
- Password: your_email_password
- SSL/TLS: Usually enabled

3. Twilio (for SMS reminders - optional)

- Account SID: your_twilio_account_sid
- Auth Token: your_twilio_auth_token
- From Number: your_twilio_phone_number

Workflow Features

- **Automatic Daily Run:** Scheduled to run at 9 AM daily

- **Manual Trigger:** Can be triggered from the web app
- **Email/SMS Support:** Sends based on patient preference
- **Status Tracking:** Updates reminder status in database
- **Error Handling:** Logs failed attempts

How It Works

1. Daily Automation:

- n8n checks for patients with follow-ups tomorrow
- Creates reminder records
- Sends email/SMS based on patient preferences
- Updates status to "sent" or "failed"

2. Manual Reminders:

- Click "Send Reminder" button on any patient
- Triggers n8n webhook to send immediate reminder
- Updates status in real-time

3. Status Tracking:

- All reminders are logged in the database
- Dashboard shows current status for each reminder
- Failed reminders can be retried manually

Configuration

Email Templates

The email template is included in the n8n workflow and can be customized in the "Send Email Reminder" node.

SMS Templates

The SMS template is in the "Send SMS Reminder" node. Keep it concise due to SMS character limits.

Reminder Preferences

Each patient can have reminder preferences:

- ☐ email - Email only
- ☐ sms - SMS only
- ☐ both - Both email and SMS

- `none` - No reminders

Testing

1. Test Database Connection:

```
bash  
  
node -e "require('./database.js')"
```

2. Test Reminder API:

```
bash  
  
# Get reminder dashboard (need auth token)  
curl -H "Authorization: Bearer YOUR_TOKEN" http://localhost:5000/api/reminders/dashboard
```

3. Test n8n Workflow:

- Use the "Execute Workflow" button in n8n
- Check if reminders are created and sent

Troubleshooting

Common Issues

1. "Failed to fetch reminders" error:

- Check if backend server is running
- Verify reminder routes are loaded in server.js
- Check database connection

2. Reminders not sending:

- Verify n8n workflow is active
- Check SMTP/Twilio credentials
- Look for errors in n8n execution history

3. Wrong timezone:

- Adjust the schedule trigger time in n8n
- Modify `scheduled_time` in reminder creation

Logs

- Backend logs: Check console output

- n8n logs: View execution history in n8n UI
- Database logs: Check reminder_logs table

Future Enhancements

- Add WhatsApp reminder support
- Implement reminder templates
- Add bulk reminder management
- Create reminder analytics dashboard
- Add patient confirmation tracking

Support

For issues or questions, please check:

- Backend logs for API errors
- n8n execution logs for workflow errors
- Browser console for frontend errors
- Database reminder_logs table for reminder-specific issues