DiagnosisAI - Wireframes & UI Specification

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Design Principles

Core Philosophy

- **Patient-Centric Architecture**: Every feature organized around individual patient profiles
- **Color-Coded Severity**: Visual urgency indicators without text labels
- **Minimal Cognitive Load**: Clean interfaces optimized for high-volume clinical workflows
- **Touch-Optimized**: Designed for mobile-first interaction
- **Offline-First**: Works without internet connectivity

Visual Language

- **Clean & Modern**: iOS-inspired interface with ample white space
- **Gradient Accents**: Purple gradient (667eea → 764ba2) for primary actions
- **Color-Coded Context**: Red (critical), Orange (moderate), Green (routine)
- **Typography**: SF Pro Display / system fonts for native feel
- **Rounded Corners**: 16px border radius for cards, 12px for buttons

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Color System

Primary Colors

```
Primary Gradient: linear-gradient(135deg, #667eea 0%, #764ba2 100%)
Background: #f8fafc (light gray)
Card Background: #ffffff (white)
```

Urgency Colors

```
Critical:
  Border: #dc2626 (red-600)
  Background: linear-gradient(to right, #fef2f2, #ffffff)

Moderate:
  Border: #f59e0b (orange-500)
  Background: linear-gradient(to right, #fffbeb, #ffffff)

Routine:
  Border: #059669 (green-600)
  Background: #ffffff
```

Text Colors

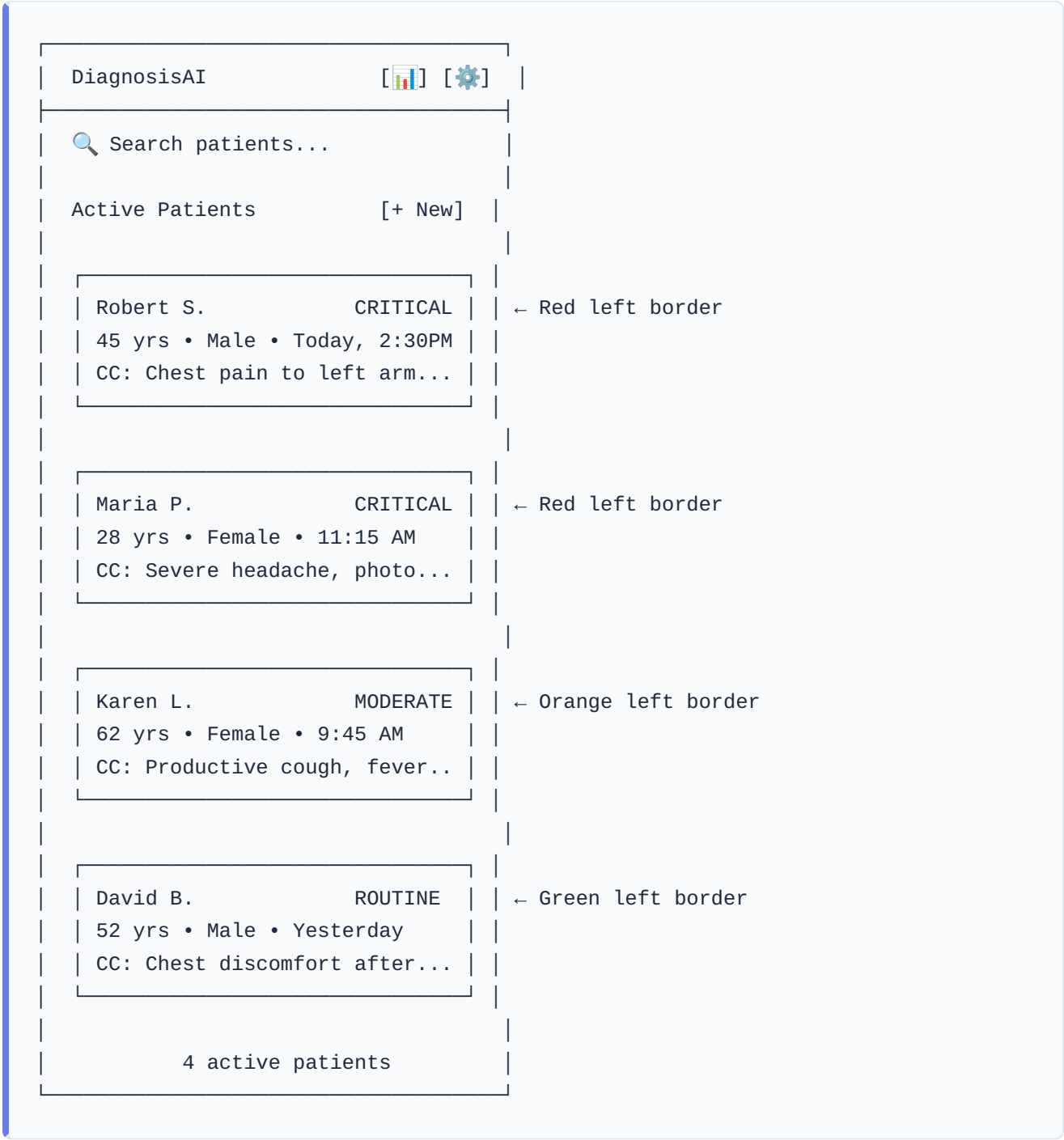
```
Primary Text: #1e293b (slate-900)
Secondary Text: #64748b (slate-500)
Tertiary Text: #94a3b8 (slate-400)
Link/Accent: #667eea (purple)
Success: #059669 (green-600)
Error: #dc2626 (red-600)
```

UI Elements

```
Borders: #e2e8f0 (slate-200)
Dividers: #f1f5f9 (slate-100)
Disabled: #cbd5e1 (slate-300)
Shadow: rgba(0,0,0,0.05)
```

Screen Hierarchy

Level 1: Home (Patient List)



Key Features:

- Patient cards with 6px colored left border indicating urgency
- Chief complaint preview (truncated)

- Tap any card to open patient profile
- Search bar for filtering patients
- Quick stats at bottom
- Add new patient button

Level 2: Patient Profile (Tabbed Interface)

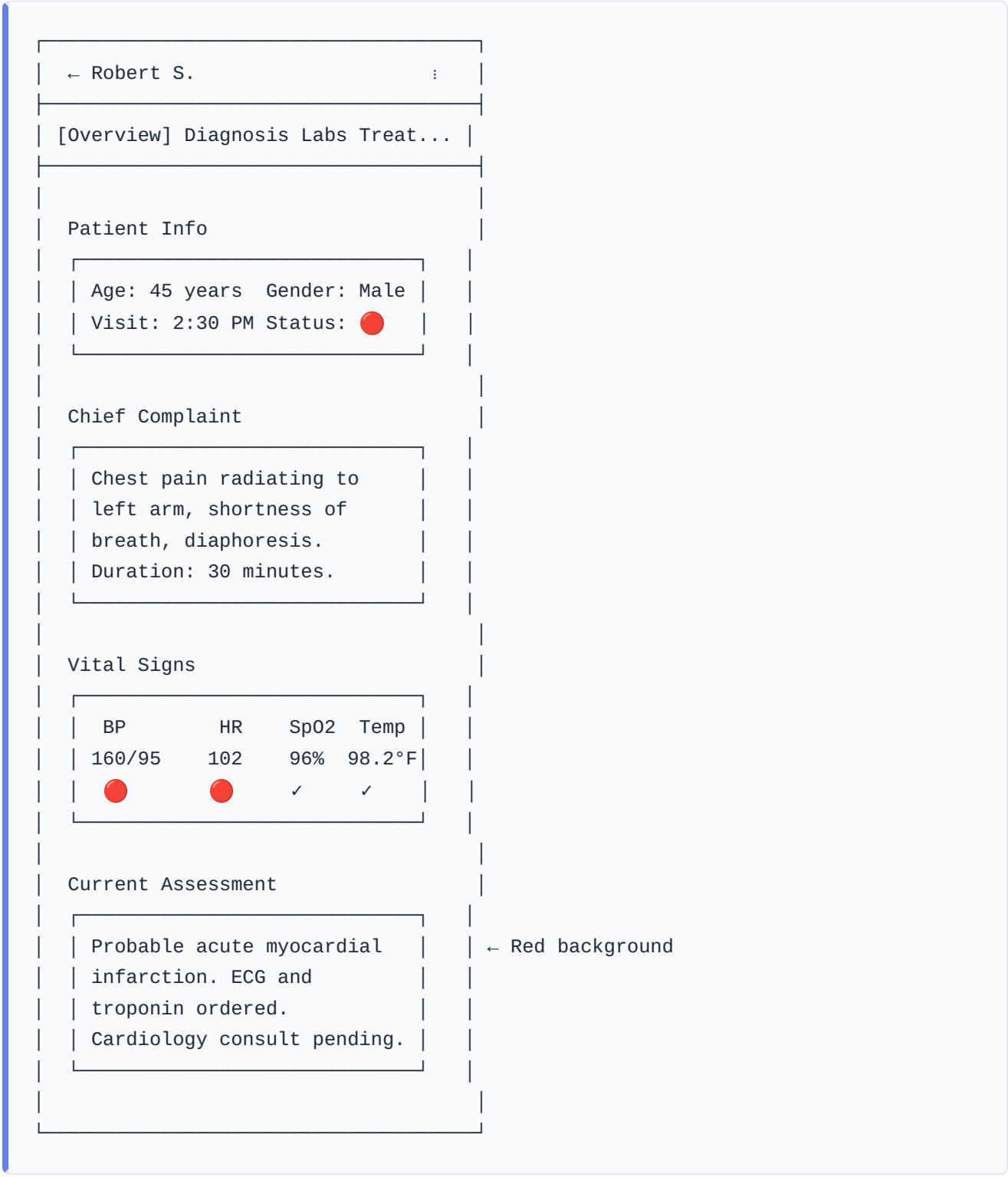
Tab Navigation

```
┌─────────────────────────────────────┐
│  ← Robert S.                    ⋮   │
├─────────────────────────────────────┤
│ [Overview] Diagnosis Labs Treat... │
└─────────────────────────────────────┘
```

Five Tabs:

1. Overview - Patient info, vitals, current assessment
2. Diagnosis - Differential diagnoses ranked by likelihood
3. Labs - Lab results input and AI interpretation
4. Treatment - Protocols, checklists, medications
5. Notes - Auto-generated clinical documentation

Tab 1: Overview

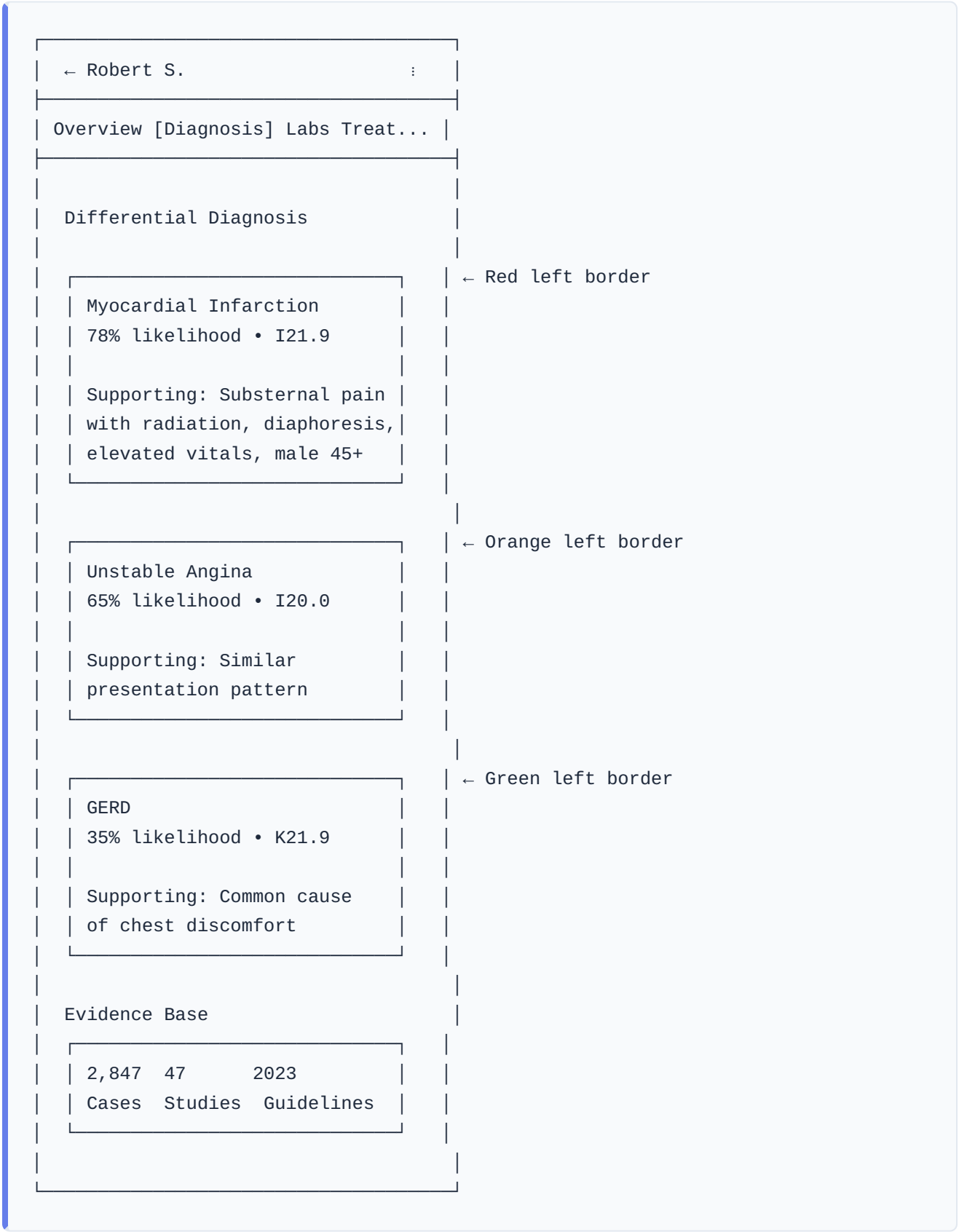


Key Features:

- Demographic summary
- Full chief complaint

- Color-coded vital signs (red if abnormal)
- Current assessment with urgency background
- Quick access to all patient context

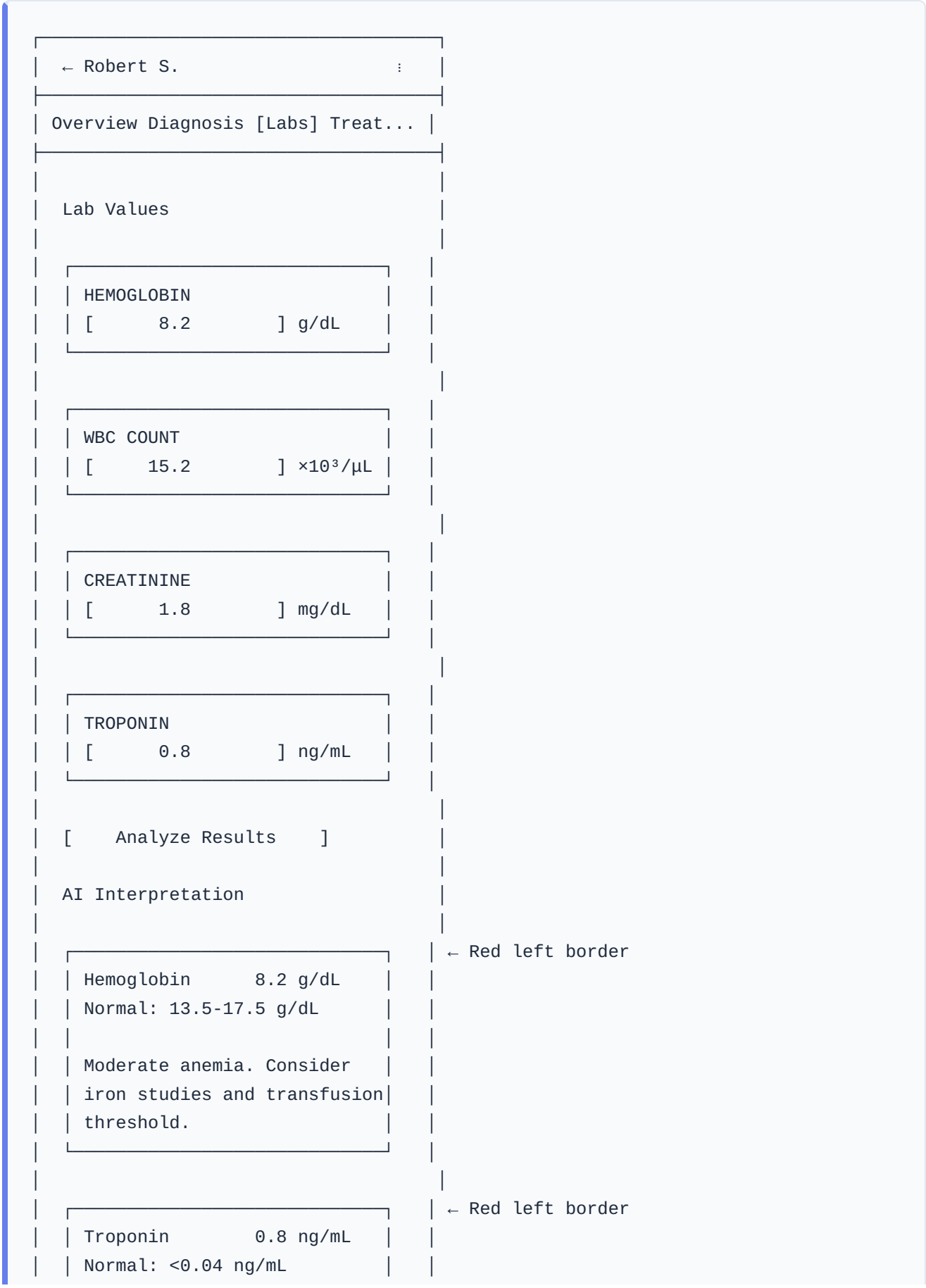
Tab 2: Diagnosis

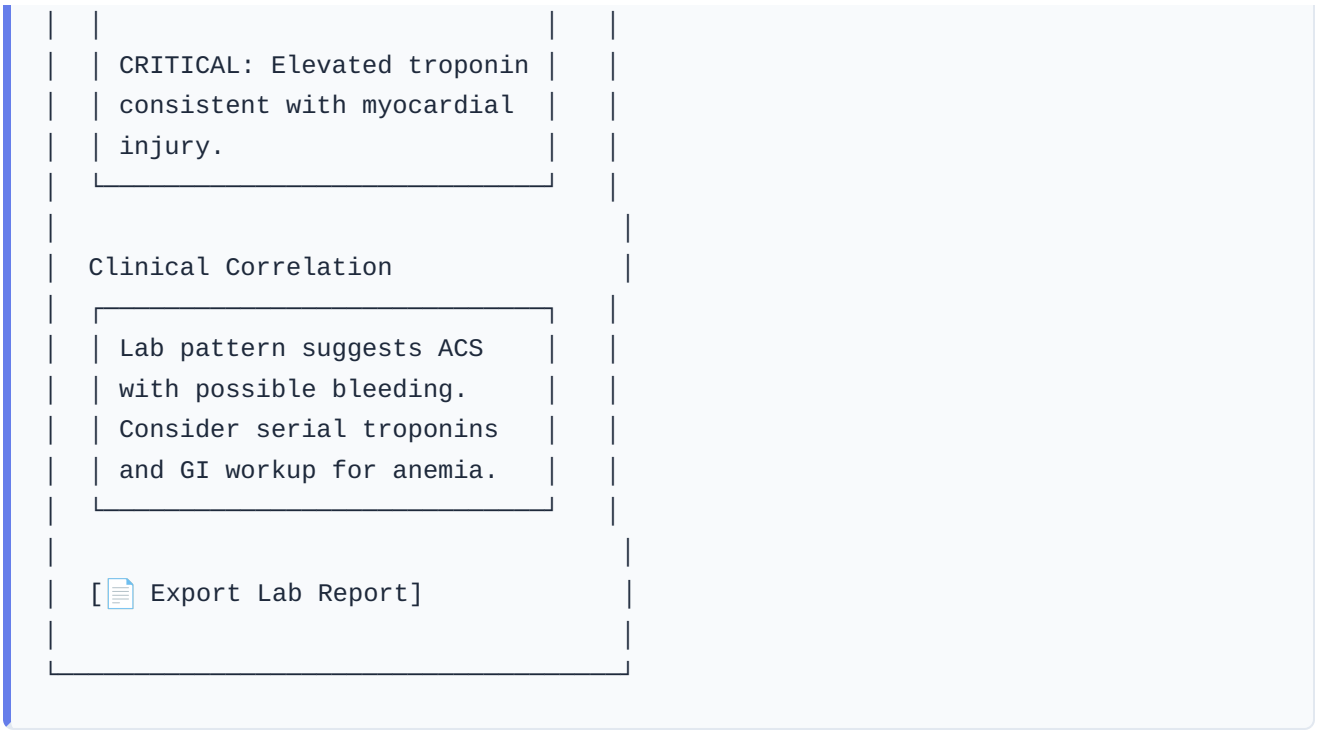


Key Features:

- Diagnoses ranked by likelihood percentage
- ICD-10 codes displayed
- Supporting evidence for each diagnosis
- Color-coded urgency borders
- Evidence base statistics
- Tap any diagnosis for detailed view

Tab 3: Labs


← Robert S.
Overview Diagnosis [Labs] Treat...
Lab Values
HEMOGLOBIN
[8.2] g/dL
WBC COUNT
[15.2] ×10³/µL
CREATININE
[1.8] mg/dL
TROPONIN
[0.8] ng/mL
[Analyze Results]
AI Interpretation
Hemoglobin 8.2 g/dL
Normal: 13.5-17.5 g/dL
Moderate anemia. Consider iron studies and transfusion threshold.
← Red left border
Troponin 0.8 ng/mL
Normal: <0.04 ng/mL
← Red left border



Key Features:

- Full-width input fields stacked vertically
- One-tap "Analyze Results" button
- AI interpretation with normal ranges
- Abnormal values highlighted with red borders
- Clinical correlation synthesizing all results
- Export functionality

Tab 4: Treatment

Key Features:

- Time-critical alerts at top
- Interactive checklists (tap to toggle)
- Organized by protocol steps
- Links to full protocols
- Drug interaction checking
- Clear visual hierarchy

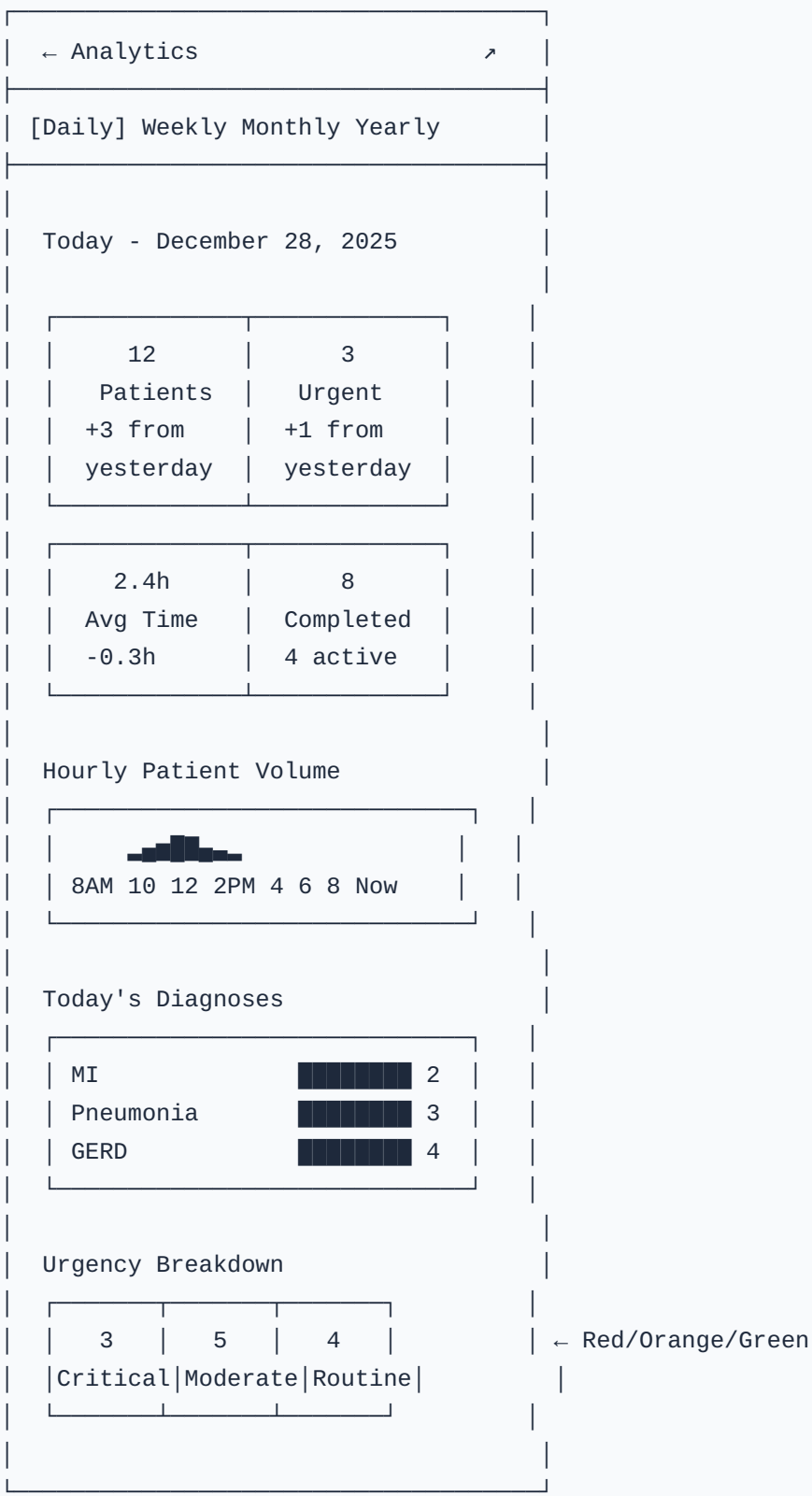
Tab 5: Notes


← Robert S.
Overview Diagnosis Labs Treat [Notes]
Clinical Note
CHIEF COMPLAINT: Chest pain
HPI: 45 y/o male presents with acute onset substernal chest pain radiating to left arm, associated with SOB...
VITALS:
BP: 160/95 | HR: 102
SpO2: 96% | Temp: 98.2°F
ASSESSMENT:
1. Acute Myocardial Infarction (I21.9)
HIGH (78%)
2. Unstable Angina (I20.0)
CONSIDER (65%)
PLAN:
- STAT ECG
- Cardiac biomarkers
- Aspirin 325mg PO given
- Cardiology consult
DISPOSITION: Admit CCU
[Copy to Clipboard]
[✏️ Edit Note]
[📧 Send to EMR]

Key Features:

- Auto-generated SOAP format
- Monospace font for clinical documentation
- Copy, edit, and send functions
- Professional medical documentation style
- Includes all relevant patient data

Level 3: Analytics Dashboard



Four Time Views:

- **Daily**: Hourly volume, today's diagnoses, urgency breakdown
- **Weekly**: Daily volume chart, top 5 diagnoses, outcomes
- **Monthly**: Weekly trends, top 10 diagnoses, performance metrics
- **Yearly**: Monthly volume, diagnosis categories, annual summary

---

Level 4: Settings


← Settings
[SC] Dr. Sarah Chen →
Internal Medicine
License: CA-123456 ✓
GENERAL PREFERENCES
Voice Input [●]
Enable voice-to-text
Auto-save Notes [●]
Automatically save notes
Offline Mode [●]
Access cached data
Language [English ▾]
App display language
NOTIFICATIONS
Critical Lab Results [●]
Alert for abnormal values
Patient Follow-ups [●]
Reminders for check-ins
Drug Interactions [●]
Medication conflicts
New Guidelines [○]
Clinical guideline updates
Sound [●]
Notification sounds
CLINICAL SETTINGS

```
│  ┌──────────────────────────────────┐   │
│  │ Specialty Focus [Cardiology▾]│   │
│  │ Prioritize diagnoses        │   │
│  ├──────────────────────────────────┤   │
│  │ AI Confidence      [50% ▾]  │   │
│  │ Minimum threshold           │   │
│  ├──────────────────────────────────┤   │
│  │ Show ICD-10 Codes       [●] │   │
│  │ Display with diagnoses      │   │
│  ├──────────────────────────────────┤   │
│  │ Auto-order Labs         [●] │   │
│  │ Suggest labs for diagnoses  │   │
│  ├──────────────────────────────────┤   │
│  │ Evidence Citations      [●] │   │
│  │ Show PubMed references      │   │
│  └──────────────────────────────────┘   │
│                                        │
│  [Scroll for more sections...]         │
│                                        │
└────────────────────────────────────────┘
```

Settings Sections:

1. General Preferences (4 controls)
2. Notifications (5 controls)
3. Clinical Settings (5 controls)
4. Display & Interface (5 controls)
5. Privacy & Security (4 controls)
6. Data Management (3 items + actions)
7. Integrations (3 systems)
8. About (version, terms, support)

Component Library

1. Patient Card

```
Component: PatientCard
Size: Full width × 120px
States: Default, Active, Pressed

Structure:
┌──────────────────────────────────────┐
│ NAME                        URGENCY  │
│ Age • Gender • Timestamp             │
│ CC: Chief complaint text...          │
└──────────────────────────────────────┘

Border Left: 6px solid (color based on urgency)
Background: White with subtle gradient on urgent/moderate
Border Radius: 16px
Padding: 20px
Gap: 12px between elements
```

2. Diagnosis Card

```
Component: DiagnosisCard
Size: Full width × Variable
States: Default, Expanded

Structure:
┌──────────────────────────────────────┐
│ DIAGNOSIS NAME                       │
│ XX% likelihood • ICD-10: XXX         │
│                                      │
│ Supporting: Evidence text...         │
└──────────────────────────────────────┘

Border Left: 6px solid (color based on urgency)
Border Radius: 16px
Padding: 20px
```

3. Lab Result Card

```
Component: LabResultCard
Size: Full width × Variable

Structure:
┌──────────────────────────────────────┐
│ LAB NAME              VALUE UNITS    │
│ Normal: XX-XX units                  │
│                                      │
│ Interpretation text...               │
└──────────────────────────────────────┘

Border Left: 4px solid (green=normal, red=abnormal)
Border Radius: 16px
Padding: 20px
```

4. Stat Card

```
Component: StatCard
Size: ~170px × 100px

Structure:
┌──────────────────┐
│       XX         │  ← Large number
│   Label Text     │
│  +X% change      │  ← Trend indicator
└──────────────────┘

Border: 2px solid #e2e8f0
Border Radius: 16px
Padding: 20px
Text Align: Center
```

5. Toggle Switch

```
Component: ToggleSwitch
Size: 51px × 28px
States: Off, On

Off: Background #cbd5e1, Circle left
On: Background purple gradient, Circle right
Animation: 0.3s ease
```

6. Primary Button

```
Component: PrimaryButton
Size: Full width × 48px

Background: Purple gradient
Color: White
Font Weight: 600
Border Radius: 16px
Padding: 16px
Active State: Translate Y +2px
```

7. Secondary Button

```
Component: SecondaryButton
Size: Full width × 44px

Background: White
Border: 2px solid #e2e8f0
Color: #475569
Font Weight: 500
Border Radius: 14px
Padding: 14px
Active State: Background #f8fafc
```

8. Tab Button

```
Component: TabButton
Size: Auto × 40px

Default: Background #f8fafc, Color #64748b
Active: Purple gradient background, Color white
Border Radius: 12px
Padding: 10px 16px
Font Weight: 600
```

9. Input Field

```
Component: InputField
Size: Full width × 48px

Border: 2px solid #e2e8f0
Border Radius: 12px
Padding: 14px 16px
Font Size: 17px
Focus: Border #667eea, Shadow 0 0 0 3px rgba(102,126,234,0.1)
```

10. Section Header

```
Component: SectionLabel
Size: Auto × Auto

Font Size: 13px
Font Weight: 600
Color: #64748b
Text Transform: Uppercase
Letter Spacing: 0.5px
Margin Bottom: 12px
```

User Flows

Flow 1: New Patient Diagnosis

```
Start → Home Screen
  ↓
Tap [+ New Patient]
  ↓
Enter patient info (name, age, gender)
  ↓
Enter chief complaint
  ↓
Tap [Create Patient & Start Diagnosis]
  ↓
Patient Profile opens (Overview tab)
  ↓
Review patient info and vitals
  ↓
Navigate to Diagnosis tab
  ↓
View differential diagnoses
  ↓
Tap top diagnosis for details
  ↓
Navigate to Labs tab
  ↓
Enter lab values
  ↓
Tap [Analyze Results]
  ↓
Review AI interpretation
  ↓
Navigate to Treatment tab
  ↓
Review protocol
  ↓
Check off completed actions
  ↓
Navigate to Notes tab
  ↓
Review auto-generated note
  ↓
Tap [Send to EMR]
  ↓
End
```

Flow 2: Review Existing Patient

```
Start → Home Screen
  ↓
Search or scroll to find patient
  ↓
Tap patient card
  ↓
Patient Profile opens (Overview tab)
  ↓
Review current status
  ↓
Navigate to desired tab (Diagnosis/Labs/Treatment/Notes)
  ↓
Perform action (view results, update treatment, etc.)
  ↓
Return to Home
  ↓
End
```

Flow 3: View Analytics

```
Start → Home Screen
  ↓
Tap [📊] icon in header
  ↓
Analytics screen opens (Daily tab default)
  ↓
Review today's metrics
  ↓
Tap [Weekly/Monthly/Yearly] tab
  ↓
Review longer-term trends
  ↓
Scroll to view all charts and data
  ↓
Tap [↗] to export (optional)
  ↓
Return to Home
  ↓
End
```

Flow 4: Configure Settings

```
Start → Home Screen
  ↓
Tap [⚙️] icon in header
  ↓
Settings screen opens
  ↓
Scroll to desired section
  ↓
Toggle switches or select dropdowns
  ↓
Changes auto-save
  ↓
Return to Home
  ↓
Settings applied
  ↓
End
```

Responsive Behavior

Mobile (< 450px)

- Phone frame fills screen (calc(100vh - 20px))
- All cards stack vertically
- Tab navigation horizontal scroll
- Reduced padding on small screens
- Font sizes scale proportionally

Tablet (450px - 768px)

- Maintain phone-like interface
- Slightly larger touch targets
- Keep single-column layout

- Center content with max-width

Desktop (> 768px)

- Center phone frame (max-width: 390px)
- Add background gradient
- Maintain mobile-first design
- No multi-column layouts

Accessibility

Color Contrast

- All text meets WCAG AA standards
- Minimum contrast ratio: 4.5:1 for normal text
- Color never sole indicator (always paired with borders/text)

Touch Targets

- Minimum tap target: 44×44px (iOS standard)
- Adequate spacing between tappable elements
- Clear visual feedback on interaction

Typography

- Base font size: 15px (readable on mobile)
- Adjustable in settings (Small/Medium/Large)
- System fonts for native feel and accessibility

Motion

- Reduced motion respects system preferences
- Optional: Disable animations in settings

• Transitions: 0.2-0.3s (not too fast)

Design Notes

Why Patient-Centric Architecture?

Originally designed with symptom-input-first workflow, but feedback from doctors revealed they need complete patient context for clinical decisions. Restructured to organize everything around individual patient profiles with tabbed navigation.

Why Color-Coding Without Emojis?

Emojis felt unprofessional for medical software. Color-coded borders provide instant visual urgency indicators while maintaining a clean, clinical aesthetic.

Why Vertical Lab Inputs?

Initially used 2-column grid, but vertical stacking provides:
- Better readability of lab names
- Easier tap targets on mobile
- No text truncation
- Clearer visual hierarchy

Why Tab Navigation?

Five distinct contexts (Overview, Diagnosis, Labs, Treatment, Notes) needed clear separation. Tabs provide:
- Quick context switching
- Reduced cognitive load
- Familiar iOS pattern
- Each tab focused on single task

End of Wireframes Document