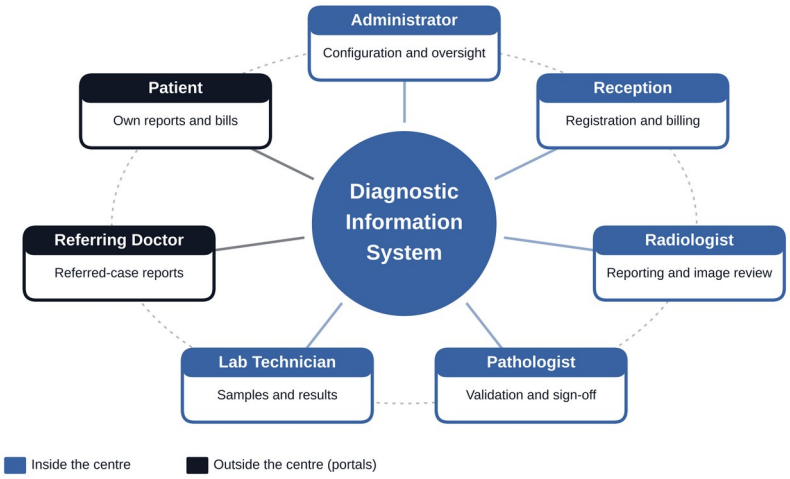
MECKLIN RESEARCH

PRODUCT BROCHURE

Diagnostic Information System

One connected platform for registration, billing, radiology, pathology, imaging and report delivery across every branch.



Seven role-based logins | AI-assisted reporting | DICOM imaging | WhatsApp delivery

Features, roles, add-ons and customisation

Platform overview

A complete diagnostic centre workflow in one web application.

The Diagnostic Information System (DIS) runs a diagnostic centre from the front desk to the final report. It is delivered as a web application and works from any modern browser. Each team member signs in with a role that exposes only the screens and actions that belong to their work, and every branch is kept in view from one place.

Registration and UHID

Unique UHID for every patient, duplicate detection on name and mobile, and search by name, mobile or UHID.

Billing and payments

Service catalogue, discounts, partial payments by cash, UPI, card or TPA, dues tracking, and receipts as PDF.

Radiology reporting

USG, Doppler and X-ray reports from twelve editable templates, with versions, amendments, letterhead, signature and QR.

Voice and AI assistance

Dictation in English, Hindi and Marathi, an AI-drafted impression, and report QC that flags likely errors before signing.

Pathology and LIS

Sample labels, result entry with High, Low and Critical flags, pathologist validation and eleven ready panels.

PACS and DICOM

Receives images from modalities over DICOM, matches them to patients, and opens them in a browser viewer.

WhatsApp delivery

Send finalised reports on WhatsApp, with a secure link protected by the last four digits of the patient's mobile.

Portals and dashboard

Portals for referring doctors and patients, and a multi-branch dashboard for revenue, dues and turnaround.

From registration to report

1	2	3	4	5
Register	**Bill**	**Collect / scan**	**Report**	**Deliver**
Reception	Reception	Reception, Technician	Radiologist / Pathologist	WhatsApp, portals

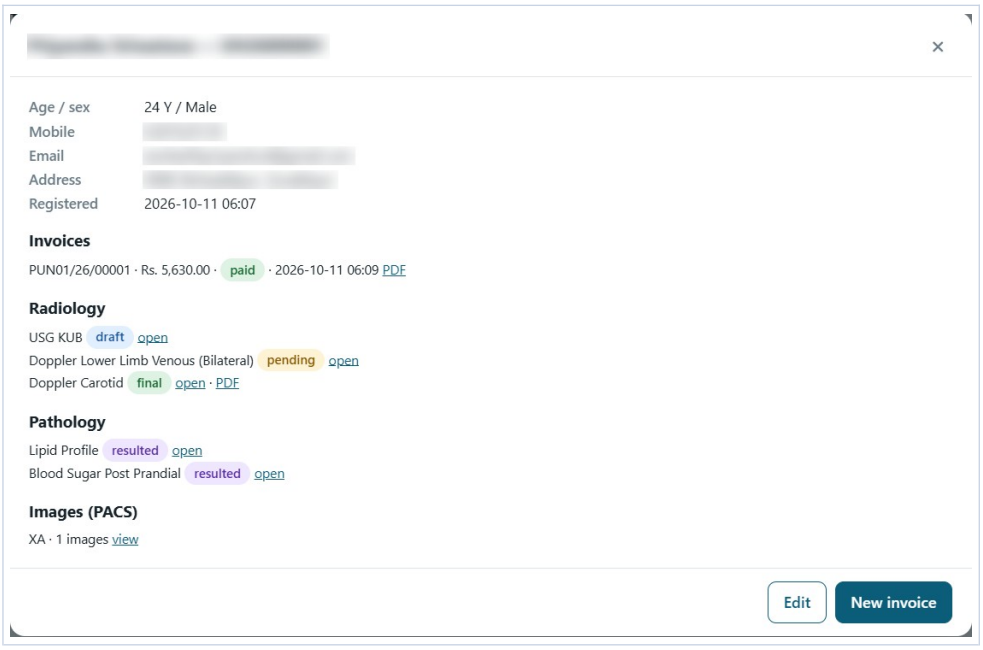
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Feature tour: patients and billing

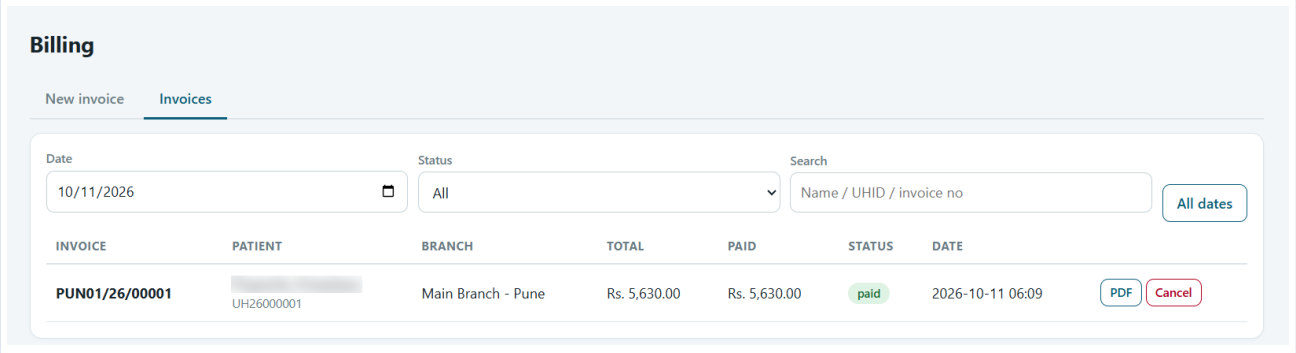
From first visit to paid invoice, in one screen flow.

Screens in this brochure show fictitious demonstration data.

- **Registration** - each patient receives a unique UHID; duplicate detection on name and mobile; search by name, mobile or UHID.
- **One record per patient** - invoices, radiology, pathology and images are listed together on the patient record.
- **Billing** - service catalogue, quantities, discount by amount or percentage, partial payments by cash, UPI, card or TPA, and dues tracking.



Patient record: invoices, radiology, pathology and images in one place



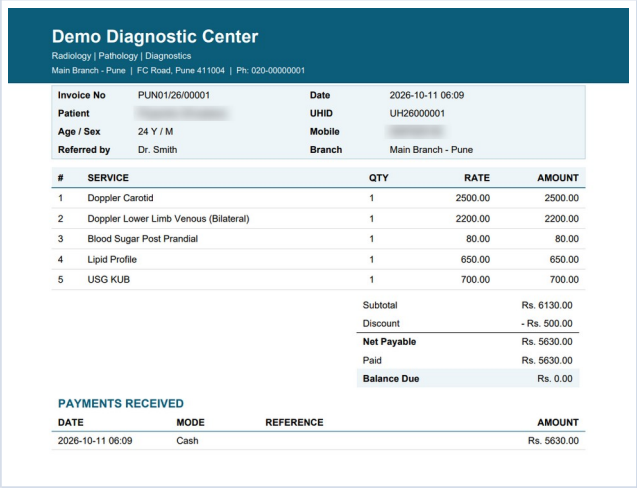
Invoice register with date, status and search filters; PDF for every invoice

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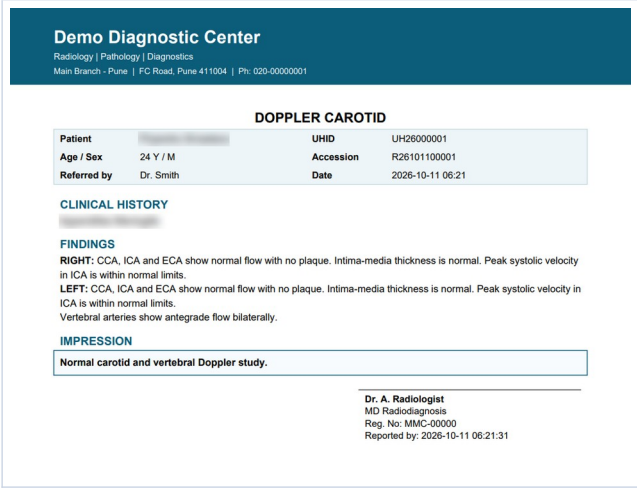
Feature tour: reports and documents

Professional output for every step.

- **Reports as PDF** - letterhead, signature block and a QR code that opens a verification page.
- **Invoices and receipts** - itemised, with discount, payments received and balance due.
- **Sample labels** - printable barcode labels for every pathology sample.
- **Secure delivery** - the report link asks for the last four digits of the patient's registered mobile number.



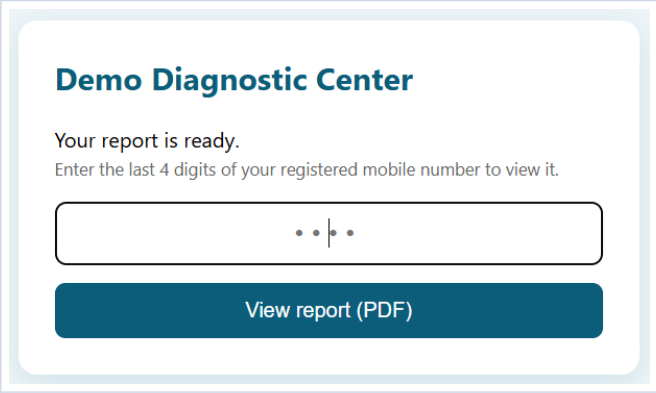
Invoice and receipt PDF



Doppler report PDF



Barcode sample label



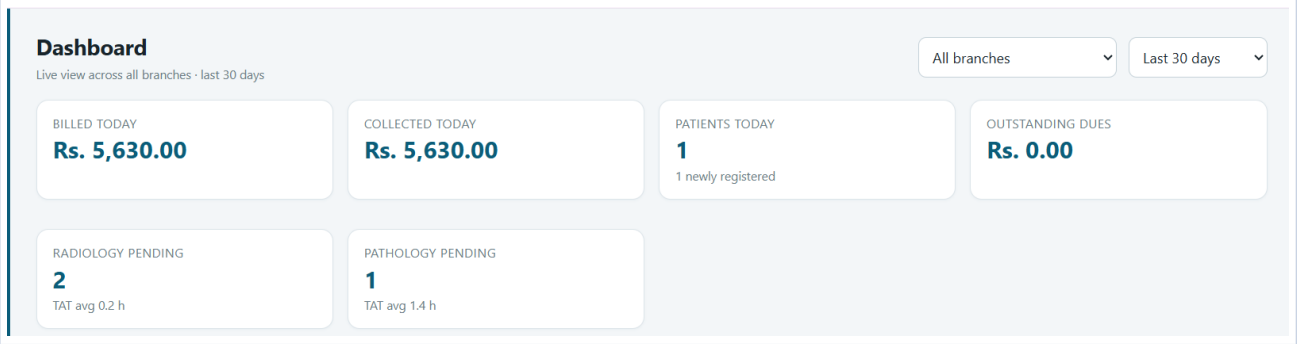
Secure link for the patient

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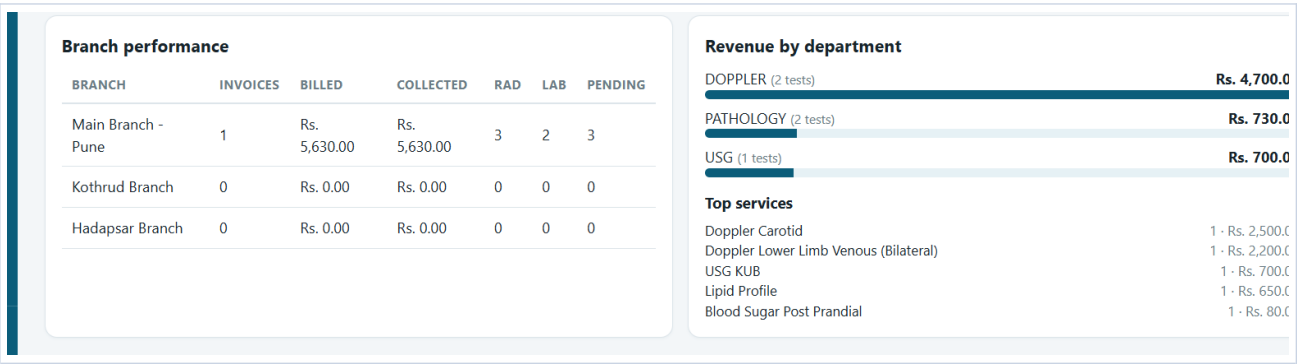
Feature tour: management dashboard

Every branch in one live view.

- **Today at a glance** - billed and collected today, patients today, outstanding dues, and pending radiology and pathology work with average turnaround time.
- **Trends and breakdowns** - revenue trend (billed against collected), branch performance, revenue by department and top services.
- **Filters** - choose all branches or one branch, and the reporting period.



Dashboard: today's figures and pending work



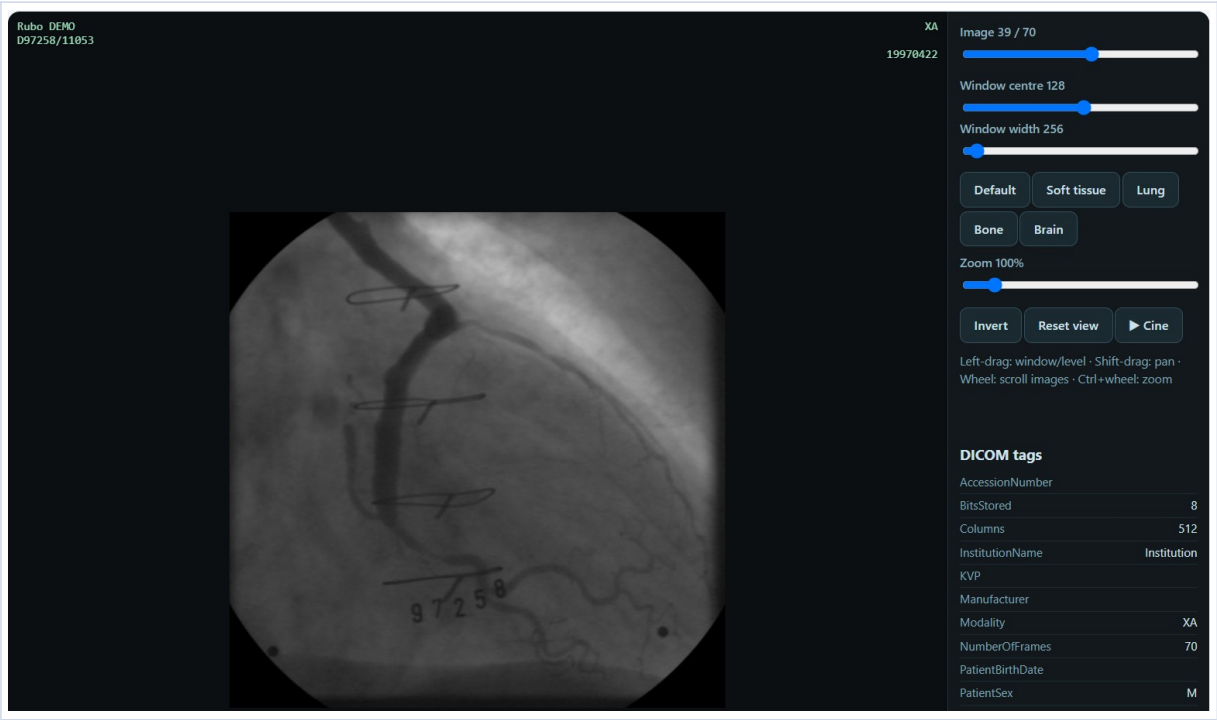
Branch performance, revenue by department and top services

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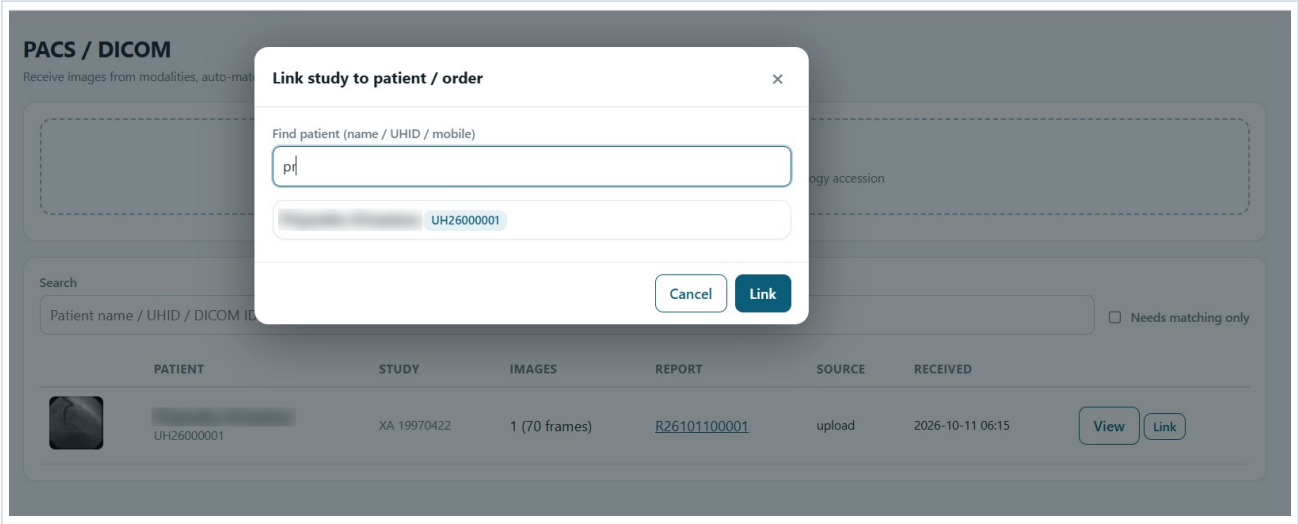
Feature tour: PACS and DICOM imaging

Images arrive, match and open in the browser.

- **Receive** - modalities send images to the built-in DICOM receiver, or staff upload files directly.
- **Match** - images link to the patient by UHID or accession number; unmatched studies wait in a queue for manual linking.
- **View** - browser viewer with window and level presets, zoom and pan, stack scrolling, cine, invert and DICOM tags.



Browser DICOM viewer with presets, cine and tags



Manual linking of a study to a patient or order

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Seven roles, one platform

Each login sees only what its work requires.

Role	Branch access	What the role is for
Administrator	All branches	Full control of the platform: people, prices, policies, branches and the audit trail.
Reception	Own branch only	The front desk: registration, billing, sample collection and report hand-over.
Radiologist	All branches	Reports USG, Doppler and X-ray studies with voice dictation, AI assistance and quality control.
Pathologist	All branches	Validates laboratory results and releases pathology reports.
Lab Technician	Own branch only	Runs the bench: sample collection, result entry and image upload.
Referring Doctor	Own referred cases	A secure view of the reports and images for the doctor's own referrals.
Patient	Own records only	Reports and bills, available to the patient at any time.

How access is enforced

- **Server-side role checks** - every action is verified on the server, not only hidden in the screen.
- **Branch isolation** - Reception and Lab Technician accounts are locked to their own branch.
- **Clinician sign-off** - reports are signed or validated by a registered clinician; AI never signs a report.
- **Audit trail** - logins, finalisations, amendments, shares and QC overrides are recorded.

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Authority matrix

What each login can do, at a glance.

Capability	Admin	Reception	Radiologist	Pathologist	Lab Tech	Doctor	Patient
Branch access	All	Own	All	All	Own	Referred	Own
PATIENTS AND BILLING							
Register and edit patients	●	●	–	–	–	–	–
Create invoices, discounts, payments	●	●	–	–	–	–	–
Cancel invoices, override line price	●	–	–	–	–	–	–
Invoices and receipts (PDF)	●	●	–	–	–	–	○
RADIOLOGY							
Worklist and status	●	○	●	–	–	–	–
Dictate, draft, AI impression and QC	○[1]	–	●	–	–	–	–
Sign reports	○[1]	–	●	–	–	–	–
Amend signed reports	○[1]	–	●	–	–	–	–
PATHOLOGY							
Collect samples, print labels	●	●	–	●	●	–	–
Enter and save results	○[1]	–	–	●	●	–	–
Validate and release	○[1]	–	–	●	–	–	–
Amend validated reports	○[1]	–	–	●	–	–	–
PACS AND IMAGING							
Upload and link DICOM images	●	●	●	–	●	–	–
View images in the viewer	●	●	●	–	●	○	–
Configure DICOM, delete studies	●	–	–	–	–	–	–
DELIVERY AND PORTALS							
Send reports on WhatsApp	●	●	●	●	●	–	–
WhatsApp message log	●	●	–	–	–	–	–
Referred-case portal	–	–	–	–	–	●	–
Personal patient portal	–	–	–	–	–	–	●
OVERSIGHT AND ADMINISTRATION							
Management dashboard	●	○[2]	●	●	–	–	–
Manage users, roles and branches	●	–	–	–	–	–	–
Services, prices, letterhead, templates, release policy	●	–	–	–	–	–	–
Audit trail and database backup	●	–	–	–	–	–	–

● Full access ○ Limited access – No access

[1] Administrator accounts can draft and enter data; signing, validating and amending require a registered clinician number on the account.

[2] Reception sees the dashboard for its own branch only. The Doctor viewer is limited to images linked to referred cases.

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ROLE 1 OF 7

Administrator

Full control of the platform: people, prices, policies, branches and the audit trail.

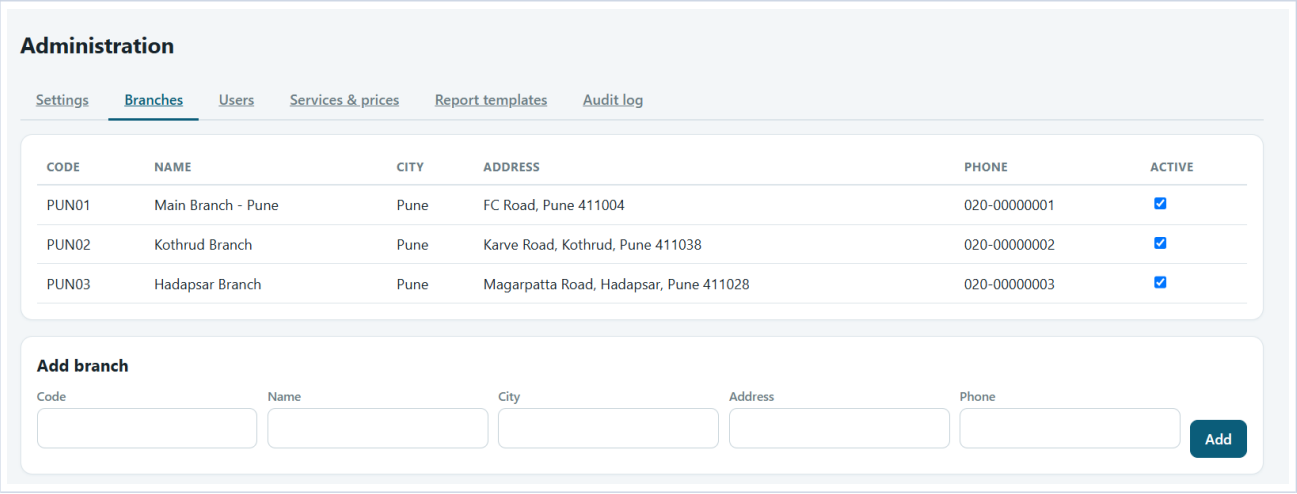
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**All branches**	**Needs clinician number to sign**

Authorities

- **Users and roles** - create, edit and deactivate accounts; assign each user a role and a branch.
- **Branches and settings** - manage centres, letterhead and branding, services and prices, report templates and the report-release policy.
- **Billing control** - cancel invoices and override line prices, in addition to everything Reception can do.
- **PACS control** - configure DICOM reception and the HTTP image-store key; delete studies.
- **Oversight** - audit trail of logins, finalisations, amendments, shares and QC overrides; database backup download.

Functions and capabilities

- Multi-branch management dashboard: revenue, dues, pending work and turnaround time.
- Register patients, bill, collect payments and print receipts across all branches.
- View and manage radiology and pathology work in every branch.
- May draft reports and enter lab results; signing and validation need a registered clinician number on the account.



Administration: settings, branches, users, services and prices, report templates and audit log

> **Good to know.** Administrator accounts are intended for the centre's owner or IT lead. Keep the number of administrators small.

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ROLE 2 OF 7

Reception

The front desk: registration, billing, sample collection and report hand-over.

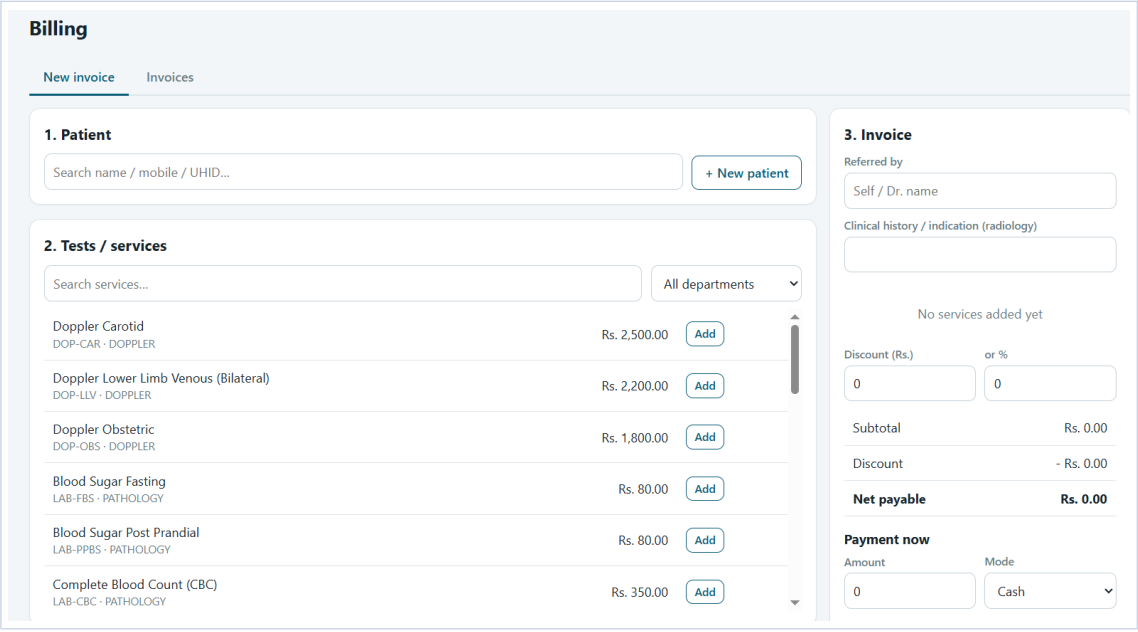
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**Own branch only**	**None - cannot sign**

Authorities

- **Patients** - register and edit patients; every patient receives a unique UHID, with duplicate detection on name and mobile number.
- **Billing** - build invoices from the service catalogue, apply discounts (amount or percentage), accept partial payments by cash, UPI, card or TPA, and track dues.
- **Documents** - print invoices and payment receipts as PDF.
- **Collection** - record sample collection and print barcode labels.
- **Images** - upload or link DICOM images and open them in the viewer.
- **Delivery** - send finalised reports on WhatsApp and review the message log.

Functions and capabilities

- Daily branch dashboard for the branch the user belongs to.
- Radiology worklist for tracking the status of each study.
- Report hand-over once a report is final (optionally held until payment is cleared).



Billing: find the patient, add services, apply a discount and take payment

> **Good to know.** Cannot cancel invoices, view draft findings, sign reports or change settings. Access is locked to the user's own branch by the server.

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ROLE 3 OF 7

Radiologist

Reports USG, Doppler and X-ray studies with voice dictation, AI assistance and quality control.

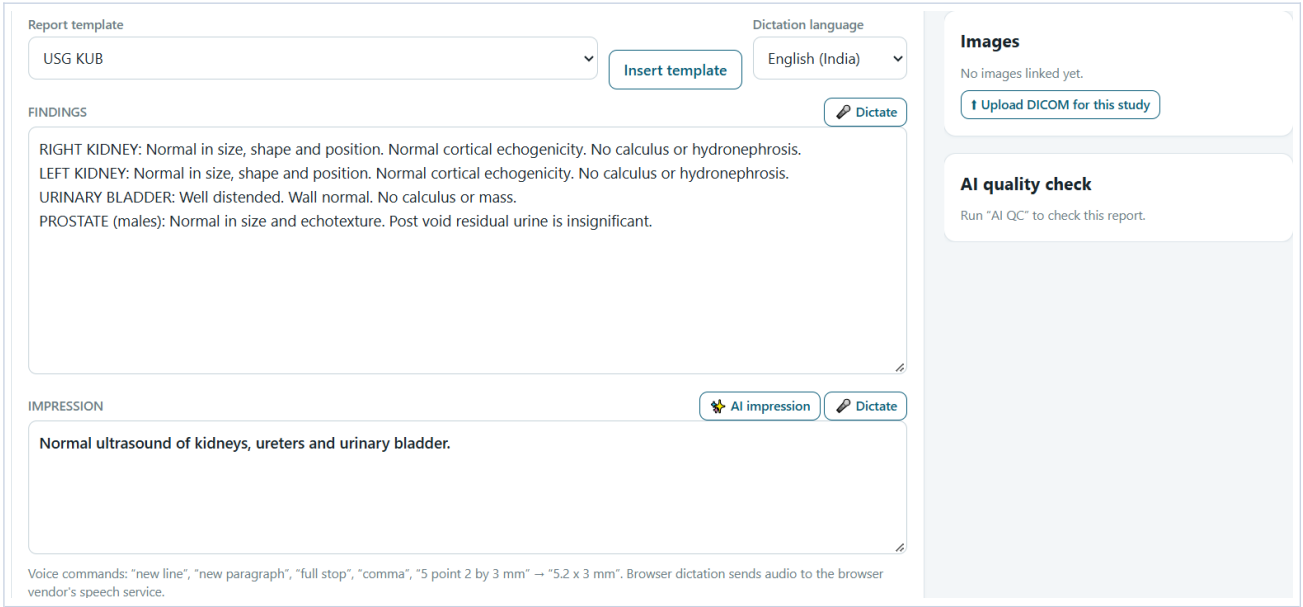
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**All branches**	**Signs radiology reports**

Authorities

- **Reporting** - open the worklist for every branch, write findings from editable templates, and save drafts.
- **Signing** - finalise reports under their registered clinician number; the signed PDF carries signature and QR verification.
- **Amendments** - reopen a signed report; earlier versions are retained in the history.
- **Images** - upload, link and view DICOM studies.
- **Delivery** - send finalised reports on WhatsApp.

Functions and capabilities

- Voice dictation into Findings and Impression in English (India, US, UK), Hindi and Marathi, with spoken commands such as new line, new paragraph, full stop and comma.
- AI impression drafts an impression from the findings for the radiologist to review and edit.
- AI QC flags mismatches such as a normal impression with abnormal findings, laterality errors, sex-specific anatomy, lesions without size, unfilled blanks and typos.
- Finalising is blocked on QC errors unless the radiologist explicitly overrides, and the override is logged.



Reporting: templates, dictation language, AI impression and AI quality check

> **Good to know.** AI output is an aid. Every report is reviewed and signed by the radiologist.

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ROLE 4 OF 7

Pathologist

Validates laboratory results and releases pathology reports.

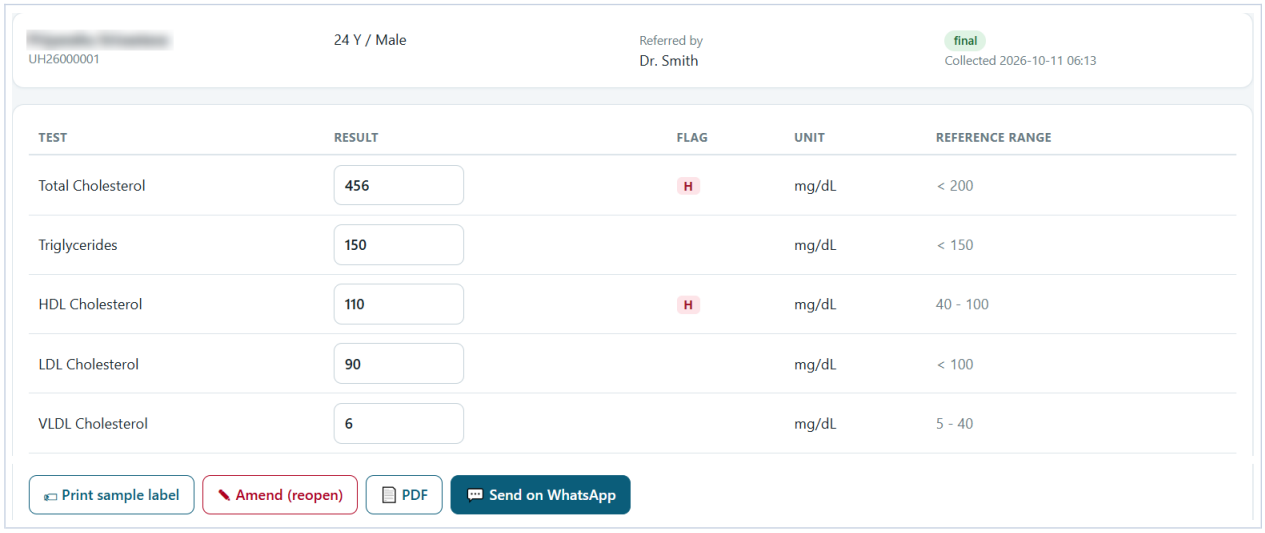
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**All branches**	**Validates pathology reports**

Authorities

- **Validation** - review entered results and release the report under their registered clinician number.
- **Amendments** - correct a validated report; the change is recorded.
- **Collection and entry** - collect samples, print labels and enter or edit results when needed.
- **Delivery** - send validated reports on WhatsApp.

Functions and capabilities

- Result entry with live and server-side High, Low and Critical flags; reference ranges are sex-specific.
- Eleven ready panels: CBC, LFT, KFT, lipid profile, FBS, PPBS, HbA1c, thyroid, vitamin D, B12 and urine routine.
- Pathology PDF with letterhead, signature and QR verification.
- Dashboard view of pending work and turnaround time across branches.



A validated report: flagged values, reopen to amend, PDF and send on WhatsApp

Good to know. Validation is the pathologist's decision; flags are decision support, not a diagnosis.

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ROLE 5 OF 7

Lab Technician

Runs the bench: sample collection, result entry and image upload.

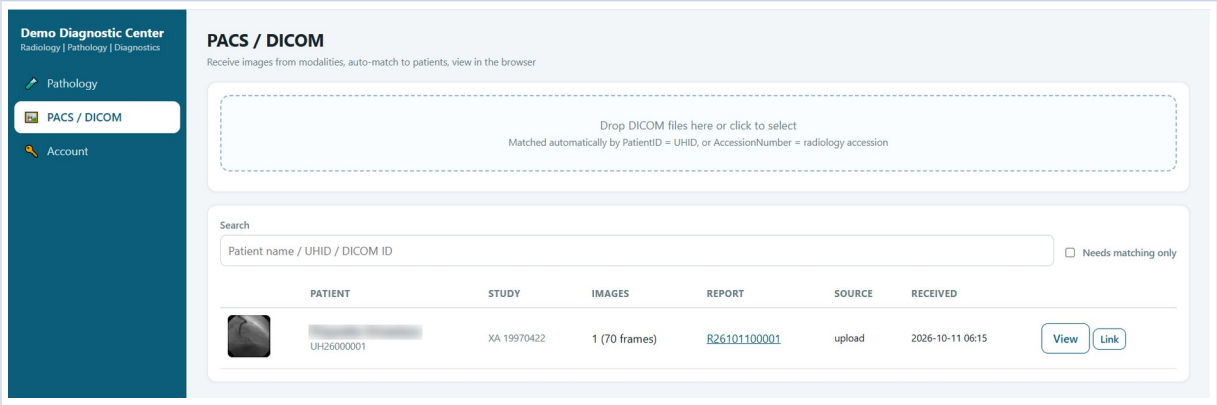
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**Own branch only**	**None - cannot validate**

Authorities

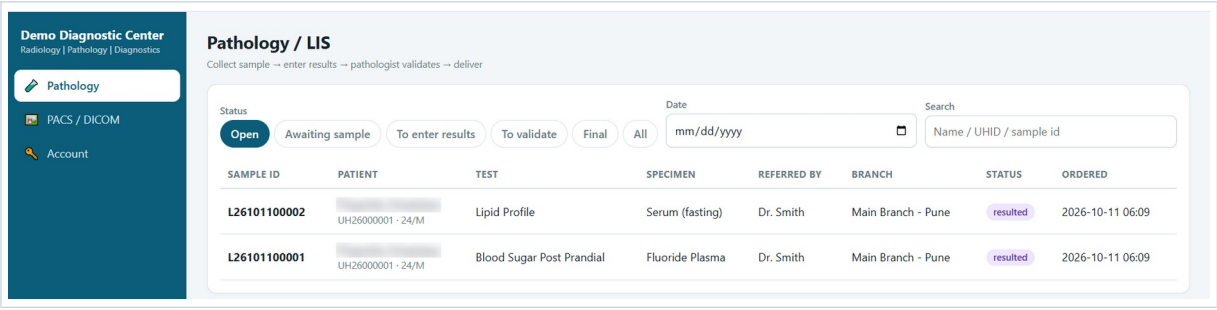
- **Samples** - collect samples and print barcode labels.
- **Results** - enter and save results; High, Low and Critical flags appear as values are typed.
- **Images** - upload or link DICOM images and open the viewer.
- **Delivery** - send finalised reports on WhatsApp.

Functions and capabilities

- Work from the pathology worklist for the user's own branch.
- Hand results to the pathologist for validation.
- Upload studies from modalities that do not push images automatically.



The technician sees only the screens that belong to the role



Pathology worklist: awaiting sample, to enter results, to validate, final

> **Good to know.** Cannot validate or release reports, bill patients or change settings. Access is locked to the user's own branch.

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ROLE 6 OF 7

Referring Doctor

A secure view of the reports and images for the doctor's own referrals.

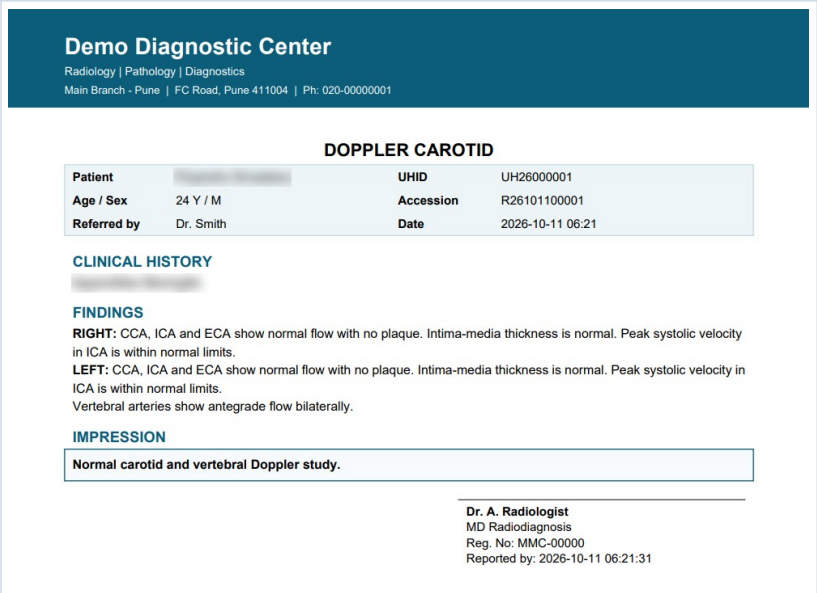
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
Username and password	**Own referred cases**	**None - read-only**

Authorities

- **Referred cases** - see only patients whose "Referred by" matches the doctor's name.
- **Reports** - open and download final report PDFs.
- **Images** - view the images linked to those cases.

Functions and capabilities

- A single portal listing referred cases with report status.
- Reports appear once they are finalised.



Demo Diagnostic Center
Radiology | Pathology | Diagnostics
Main Branch - Pune | FC Road, Pune 411004 | Ph: 020-00000001

DOPPLER CAROTID

Patient	[redacted]	**UHID**	UH26000001
Age / Sex	24 Y / M	**Accession**	R26101100001
Referred by	Dr. Smith	**Date**	2026-10-11 06:21

CLINICAL HISTORY
[redacted]

FINDINGS
RIGHT: CCA, ICA and ECA show normal flow with no plaque. Intima-media thickness is normal. Peak systolic velocity in ICA is within normal limits.
LEFT: CCA, ICA and ECA show normal flow with no plaque. Intima-media thickness is normal. Peak systolic velocity in ICA is within normal limits.
Vertebral arteries show antegrade flow bilaterally.

IMPRESSION
Normal carotid and vertebral Doppler study.

Dr. A. Radiologist
MD Radiodiagnosis
Reg. No: MMC-00000
Reported by: 2026-10-11 06:21:31

A final report PDF as opened from the doctor portal

Good to know. Read-only. Cannot see other doctors' patients, billing or any administrative function.

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ROLE 7 OF 7

Patient

Reports and bills, available to the patient at any time.

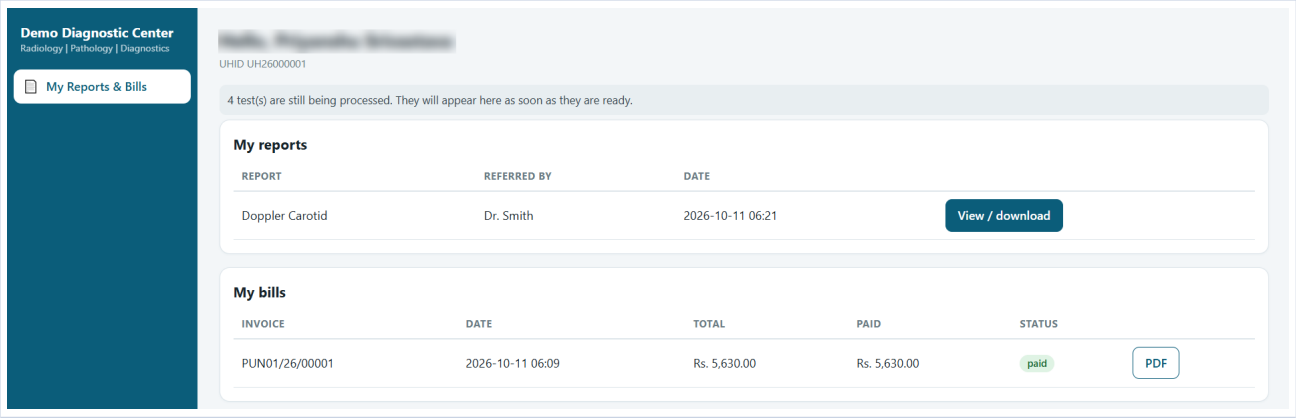
SIGN-IN	BRANCH ACCESS	REPORT SIGN-OFF
UHID and registered mobile number	**Own records only**	**None - read-only**

Authorities

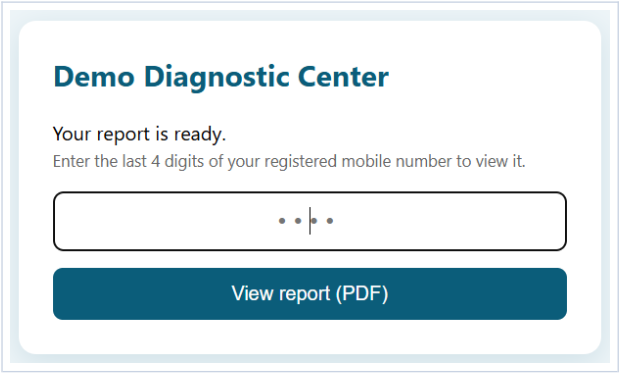
- **Reports** - view and download own final reports.
- **Bills** - view own invoices and receipts.

Functions and capabilities

- Sign in with UHID and the registered mobile number; repeated failed attempts are rate-limited.
- Reports can be held until payment is cleared if the centre enables that policy.
- Reports can also be received as a secure WhatsApp link protected by the last four digits of the registered mobile number.



Patient portal: own reports and bills



Secure report link: last four digits of the registered mobile

Good to know. Sees only their own data.

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Customisation

Make the platform look and work like your centre.

Configure it yourself

Administrators change these settings from the Admin screens, with no programming.

Branding and letterhead

Centre name, tagline, report footer, currency and letterhead used on every PDF.

Branches

Add branches with code, name, city, address and phone; assign users to a branch.

Users and roles

Create accounts, choose a role and branch, set clinician registration details, deactivate leavers.

Services and prices

Maintain the service catalogue and prices for radiology and pathology.

Report templates

Edit the radiology templates and extend the lab panels to match your protocols.

Policies

Hold reports until payment is cleared, or release them straight away.

Customise it with Mecklin

For needs beyond the settings above, Mecklin Research can tailor the platform to your centre on request.

- **White-label branding** - your logo, colours and report layout throughout the application and PDFs.
- **Custom report formats** - department-specific layouts for radiology and pathology reports.
- **Workflow changes** - extra fields, approvals and steps that match how your centre works.
- **Management reports** - custom MIS reports and dashboards for owners and branch heads.
- **Data migration** - move existing patient and billing records into the platform.
- **Deployment** - on your own servers or hosted for you, with HTTPS and scheduled backups.
- **Training and support** - role-wise training for your team and ongoing support plans.

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Available add-ons

Extend the platform as your centre grows.

Add-ons are built and integrated on request. Scope and timelines are agreed per project.

Area	Add-on	What it adds
Billing	**GST invoicing**	GST-compliant tax invoices with tax breakdown.
Billing	**Insurance and TPA claims**	Claim creation, tracking and settlement.
Billing	**Corporate and credit accounts**	Billing for companies, camps and credit customers.
Billing	**Referral tracking**	Referring-doctor reports and payout tracking.
Compliance	**PC-PNDT Form F**	Records for obstetric ultrasound; legal review is needed before use.
Integration	**HL7 and FHIR**	Exchange data with hospital and other clinical systems.
Integration	**DICOMweb (QIDO and WADO)**	Open studies in external viewers and teleradiology tools.
Integration	**Lab analyser interfacing**	Receive results directly from analysers.
Integration	**SMS and email delivery**	Send report notices and links by SMS or email.
Integration	**Online payments**	Payment links and gateway reconciliation.
Security	**OTP sign-in for patients**	One-time password by SMS or WhatsApp.
Security	**Two-factor sign-in and SSO**	Stronger sign-in for staff accounts.
AI and voice	**On-premises speech recognition**	Keep dictation audio inside your own network.
AI and voice	**More report templates**	CT, MRI, mammography and other modality templates.
Scale	**PostgreSQL and high availability**	Larger multi-centre deployments with failover.
Operations	**Home collection and field app**	Schedule collections and record samples on a phone.
Operations	**Patient mobile app**	Reports, bills and booking in a branded app.
Operations	**Inventory and stock**	Reagent and consumable stock with alerts.

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Security, integration and deployment

Built for a clinical environment.

Security

Role-based access enforced on the server, branch isolation, rate-limited sign-in, an audit log and a database backup download.

Report integrity

Signed PDFs with letterhead, signature and a QR code that opens a verification page. Amendments keep the history.

DICOM integration

Built-in receiver for modalities (DICOM C-STORE) and an HTTP endpoint protected by an API key. Images match by UHID or accession number.

WhatsApp

Works out of the box with click-to-chat links, or automatic sending through the WhatsApp Business Cloud API when configured.

Optional LLM impressions

The built-in impression engine is rule-based. A language model can be enabled through configuration; when enabled, findings text is sent to the provider.

Deployment

Runs on Windows, Linux or macOS, or in Docker. Serve it over HTTPS behind a reverse proxy for live use.

Technical specifications

Application	Web application; staff and patients use a browser, nothing to install on workstations
Browsers	Chrome or Edge recommended; voice dictation needs Chrome or Edge with a microphone
Server	Windows, Linux or macOS, or Docker; HTTPS behind a reverse proxy for live use
Database	SQLite by default; PostgreSQL recommended for larger deployments
Imaging	DICOM C-STORE receiver (default AE title DIS_PACS, port 11112, configurable) and HTTP store with API key
Reports	PDF with letterhead, signature and QR verification
Dictation languages	English (India, US, UK), Hindi and Marathi
Messaging	WhatsApp click-to-chat, or WhatsApp Business Cloud API when configured
Users	Seven roles; multiple branches with branch-level access control

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Getting started

A simple path from first conversation to go-live.

1 Discover

We learn your branches, modalities, services and reporting practice, and agree what to configure or add.

2 Configure

Branding, branches, users, services, prices and templates are set up; add-ons are built if needed.

3 Migrate and train

Existing records are brought in and each role is trained on its own screens.

4 Go live and support

Go-live with the team alongside, then ongoing support and updates.

Who it is for

- **Multi-branch diagnostic centres** that want one view of revenue, dues and turnaround.
- **Imaging centres** that report USG, Doppler and X-ray and want voice dictation and QC.
- **Pathology labs** that need sample labels, result flags and pathologist validation.
- **Centres that deliver reports digitally** through WhatsApp and a patient portal.

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Important information

Please read before deployment.

- **AI is an assistant.** AI impressions and QC flags support the clinician and can miss things. Every report is reviewed and signed by a qualified radiologist or pathologist. The software is not a certified medical device.
- **Regulatory review.** Before marketing or relying on AI-based clinical decision support, check applicable requirements such as CDSCO guidance. Obstetric ultrasound is governed by the PC-PNDT Act; the current build does not include Form F or related records, which must be added and legally reviewed before the obstetric modules are used.
- **Data protection.** Patient information is sensitive personal data under India's DPDP Act 2023. Define consent, retention and access policies. Browser dictation sends audio to the browser vendor's speech service; use an on-premises speech engine if that is not acceptable.
- **Patient sign-in.** The patient portal uses UHID and registered mobile number with rate limiting. A one-time password by SMS or WhatsApp is recommended for live use.
- **Defaults to review.** Reference ranges, report templates and prices are sensible defaults. Have the centre's pathologist and radiologists review them before go-live.
- **Not in this version.** GST invoicing, insurance and TPA claim workflow, HL7 and FHIR interfaces, DICOMweb for external viewers and analyser interfacing are not included. They are listed under Available add-ons.

MECKLIN RESEARCH

Diagnostic Information System is a product of Mecklin Research. Features described in this brochure reflect the current version of the software.

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