

ifa EMR Premium System Architecture

Developed according international Design Standards

ISO 9241-11 Compliance

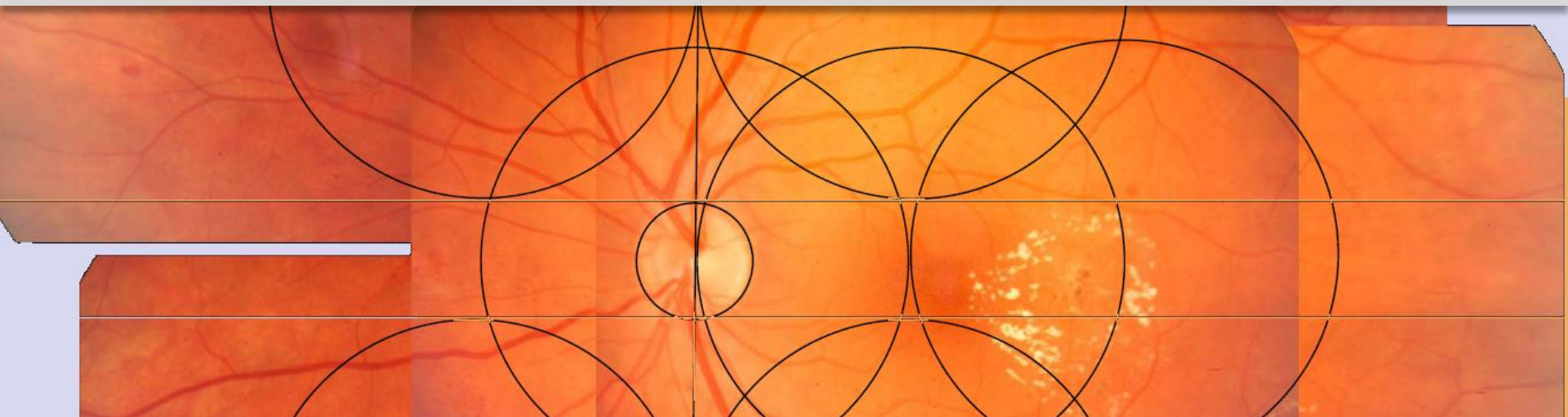


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Ergonomic User Interface

Data entry flow following innovative standards (e.g. reading curve)

The screenshot shows a medical software interface for a patient named 'DEMO-Retina, Ronda' (10-18-1929, 83 years old). The interface includes a menu on the left, a main data entry area, and a right-hand sidebar. Annotations 1 through 5 indicate a specific data entry flow:

- 1**: Points to the patient information header.
- 2**: Points to the 'Menu' on the left side.
- 3**: Points to the 'Anterior Exam' table at the bottom.
- 4**: Points to the 'Eyelids' list on the right sidebar.
- 5**: Points to the 'Normal Eyelids' option at the bottom of the sidebar.

The 'AD/Eyelids' table contains the following data:

Date	Side	Area	Abbrev	Loc.	Loc.	Loc.
12-07-12	B	EL	normal eyelids			
09-05-06	B	EL	meibomian gland dysfunction	1+		
	R	EL	blepharitis	1+		
	L	EL	blepharitis	2+		
06-05-06	B	EL	meibomian gland dysfunction	1+		
	R	EL	blepharitis	1+		
	L	EL	blepharitis	2+		
03-20-06	B	EL	meibomian gland dysfunction	1+		
	R	EL	blepharitis	1+		
	L	EL	blepharitis	2+		
12-19-05	B	EL	meibomian gland dysfunction	1+		
	R	EL	blepharitis	1+		

The 'Anterior Exam' table contains the following data:

Facial & Orbit	Sclera	Lens	Pupil Exam	Motility	All normal
Eyelids	Cornea	Vitreous			All no change
Conjunctiva	Anterior Chamber	Gonioscopy			

Search

Room Overview

Ringlist

Screen Protection

Message

WFM

Day Report

N.N

Patient Demographics
First Visit

Last Visit

Patient Diagnosis

Existing Test Data

New Entry Fields

Patient Review - Info Part – established information

Dashboard

Chart Reviews

Encounter Type

History Complete

Clinical Workflows

General Exam

Anterior Exam

Posterior Exam

Special Exam

Diagnosis

Treatment Plan

Demographics

Sticky Notes

Prescriptions

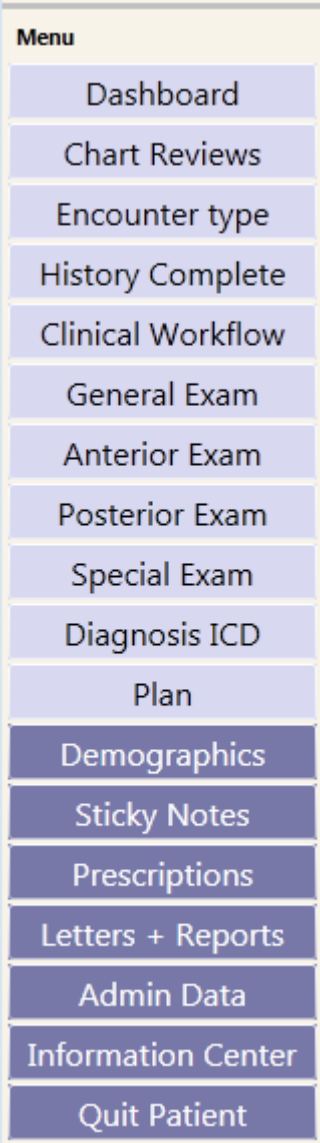
Letters + Reviews

Admin Data

Information Center

Quit Patient

Main Menu



- Choosing the working area e.g.
 - Viewing clinical data
 - Entering clinical data
 - Viewing admin data
 - Entering admin data
- Hard wired structure

Sub Menu

- Choosing the sub category e.g.
 - General ophthalmology
 - Cataract and Cornea
 - Retina
 - Oculoplastics
 - Pediatric Ophthalmology
 - Glaucoma etc.
 - All customizable

Encounter					
General	Retina				
Cornea / Anterior	Pediatrics				
Glaucoma	Oculoplastics				
Cataract / Refractive	Neuro				

Pick Lists

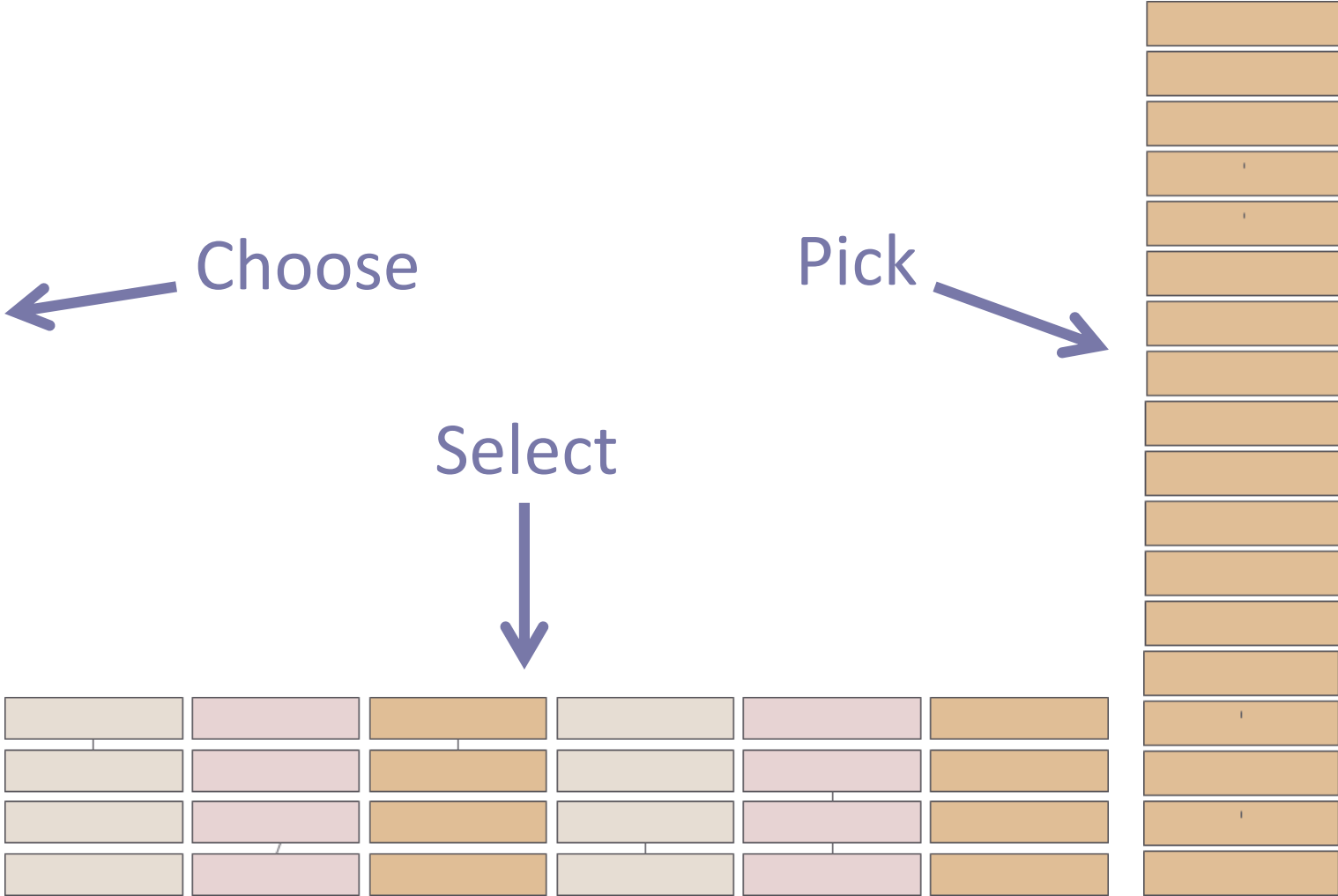
- Choosing the code and term e.g.
 - Finding and observations
 - Diagnosis
 - Medications
 - Treatment Plans
 - Interpretations
- All customizable

Macula	
AMD Wet	
AMD Dry	
Diabetic Macular Edema	
Drusen soft	
Drusen hard	
Drusen scattered	
No Macular Drusen	
Macular hemorrhage	
Microaneurysm	
Myopic degeneration	
Macular hole	
Pseudo-hole	
Pigmentary Changes	
Subretinal Fluid	
Normal Mac	No Change
Comment	IDEM
More	Draw
Modifiers	

Template Concepts (1)

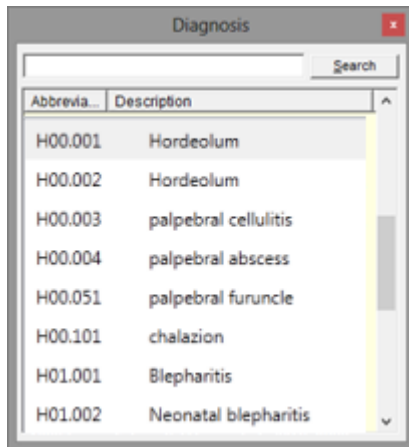


- Dashboard
- Chart Reviews
- Encounter Type
- History Complete
- Clinical Workflows
- General Exam
- Anterior Exam
- Posterior Exam
- Special Exam
- Diagnosis
- Treatment Plan
- Demographics
- Sticky Notes
- Prescriptions
- Letters + Reviews
- Admin Data
- Information Center
- Quit Patient



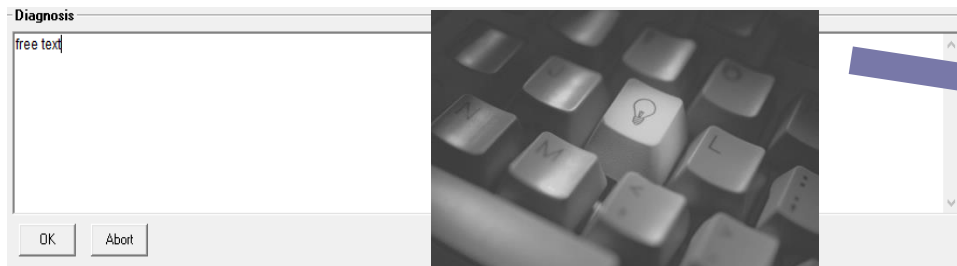
Data Entry concepts

Diagnosis					
Eyelids	Cornea	Cataract	Vitreous	Optic Nerve	Genetic Disorders
Facial & Orbit	Anterior Chamber	Glaucoma	Periphery	Visual Disturbances	Systemic Diseases
Conjunctiva	Iris	Strabismus	Vessels	Refractive Disorders	
Sclera	Pupils	Lacrimal	Macula	Uveitis	Suggestions



80% Data Entry with just a mouse click or touch

15% Data Entry by choosing from a comprehensive code list



5% Data Entry with text (individual by keyboard)

Work Up Sample

The user can choose the individual **clinical pathways for technicians**

Title	Comprehensive Work Up	IOP Check Work Up	Follow Up Work Up
Areas:	Chief complaint	Chief complaint	Chief complaint
	History of present illness	History of present illness	History of present illness
	Past ocular history	Past ocular history	Past ocular history
	Past ocular procedures	Past ocular procedures	Past ocular procedures
	Past medical history	Past medical history	Past medical history
	Eye medications	Eye medications	Eye medications
	Systemic medicines	Systemic medicines	Systemic medicines
	Allergies	Allergies	Allergies
	Family history	Family history	Family history
	Social history	Social history	Social history
	Contact Lens	Vision	Vision
	Glasses/ Lensometer	Confrontat. Visual Fields	Confrontat. Visual Fields
	Vision	Pupils	Motility

Observation Classes

Abbreviations

File Abbreviation View Extra Help

Area: Findings/Assessments

List of abbreviations in this area:

No.	Abbreviati...	Description
1	CC	Chief Complaint
2	RI	Referral Information
3	CP	Patient Context
4	EC	Education & Consent
5	TY	Surgery Type
6	SX	Procedure
7	PT	Procedure Steps
8	ND	Nurse Documentation
9	AN	Anesthesia
10	SM	SX Medication
11	IM	Implants
12	TD	Technical Data
13	DD	Device Data
14	TE	Team Data
15	IN	Intra OP Notes
16	VQ	Visual Quality
17	CX	Complications
18	SF	Surgery Follow Up
19	RD	Research Data
20	IP	Inpatient Report
21	BI	Billing Information
22	PA	Patient Satisfaction
23	C3	Context 3
24	A3	End of File
25	OE	Ocular Exams
26	PO	Past Ocular History
27	CH	Contact Lens History
28	EM	Eye Medications

Sclera

Scleral Thinning

Injection

Calcific Plaque

Chemosis

Conjunctivis

Follicles

Follicular Reaction

Giant Papillary
Conjunctivis

Inferior Palpebral
Concretions

Inferior Palpebral
Hypertrophy

Chronic Inflammation

Normal
Sclera

No Change

Comment

IDEM

More

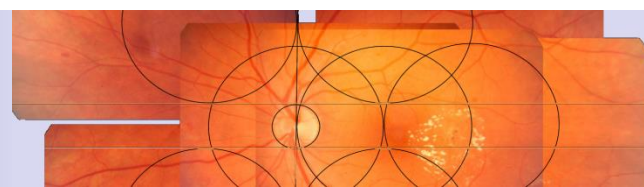
Draw

Modifiers

Anterior Exam

Facial & Orbit	Sclera	Lens	Pupil Exam	Motility	All r
Eyelids	Cornea	Vitreous			All r
Lacrimal System	Iris				
Conjunctiva	Anterior Chamber	Gonioscopy			

100 Observation classes with 18.000+ terms



Area: AD/Eyelids (55 / EL)		List of abbreviations in this area:	
Abbreviati...	Description	Abbreviati...	Description
AD/Eyelids (55 / EL)	78D	78D	78 dioptor lens
AD/Lacrimal Glands (56)	90D	90D	90 dioptor lens
AD/Lacrimal Drainage (5)	ABCE	ABCE	abscess and cellulitis
AD/Preauricular Node (5)	ABSC	ABSC	abscess

Area: Facial_Orbit (59 / FA)		List of abbreviations in this area:	
Abbreviati...	Description	Abbreviati...	Description
Facial & Orbit (59 / FA)	BCOMT	BCOMT	brow comment
Conjunctiva (60 / CB)	BPRP	BPRP	prominent brow
Sclera (61 / SC)	BREL	BREL	elevated brow
Cornea (62 / CO)	BRTA	BRTA	bruit absent
Cornea/Epithelium (63 / E)	B RTP	B RTP	bruit present

Area: Conjunctiva (60 / CB)		List of abbreviations in this area:	
Abbreviati...	Description	Abbreviati...	Description
Conjunctiva (60 / CB)	ABRA	ABRA	conjunctival abrasion
Iris (68 / IR)	ACMU	ACMU	acute conjunctivitis follicular
Sclera (61 / SC)	ALL	ALL	allergic chemosis
Cornea (62 / CO)	ANKY	ANKY	ankyloblepharon
Cornea/Epithelium (63 / E)	ANOM	ANOM	scleral anomaly
Cornea/Endothelium (64)	ANT	ANT	anterior scleritis
Cornea/Stroma (65 / ST)			
CL Soft (66 / CS)			

Area: Sclera (61 / SC)		List of abbreviations in this area:	
Abbreviati...	Description	Abbreviati...	Description
Sclera (61 / SC)	ACFD	ACFD	acute conjunctivitis, follicular
Cornea (62 / CO)	ALLC	ALLC	allergic conjunctivitis
Cornea/Epithelium (63 / E)	BLEP	BLEP	blepharoconjunctivitis
Cornea/Endothelium (64)	CALC	CALC	calcific plaque
Cornea/Stroma (65 / ST)	CCI	CCI	chronic inflammation
CL Soft (66 / CS)	CCJ	CCJ	conjunctiva clear
CL RGP (67 / CR)	CHEM	CHEM	chemosis
Iris (68 / IR)	CLEAR	CLEAR	palpebral conjunctiva clear
Anterior Chamber (69 / A)	COAL	COAL	conjunctivitis
Anterior Chamb/Cells (70)	COCH	COCH	conjunctivitis, chronic
Anterior Chamb/Flare (71)	COCN	COCN	conjunctival concretions
Gonioscopy (72 / GO)	COMT	COMT	conjunctival palpebral comment
Lens (73 / LY)			
Lens/Ant. Capsule (74 /)			

The 4 modules which make the difference:

ECM+CDSA+CQA+ESM

EMR data mining depends on intelligent technology and clinical competence. The comprehensive ifa data model with 100 structured observation classes (SNOMED compatible) and more than 120 eye care specific data types (e.g. refraction, visual acuity, macula thickness, IOP etc.) offers user friendly and innovative data mining processes for all relevant evaluations and questions.

