

ROGER MEDICAL
INFORMATION SYSTEM



»» CONSULTATIONS MODULE
Version 6.0



Consultations Information System

Clinical information systems are often touted for their potential ability to improve quality of health care. The clinician module, implemented in single clinics and polyclinics, is an electronic paperless medical record system that serves as a clinical data repository for storing data related to patient's history of illness, and their interaction with healthcare providers. The repository records information capable of aiding physicians in deciding about patient's condition, diagnosis, treatment options, actions to be undertaken and other relevant information that could help in performing those actions. The database could also hold other information related to patients' genetic, social and environmental contexts.

Objectives:

The main objective that impels the development of a clinician module is to support patient-specific information in a legible, organized, and timely manner for accurate healthcare delivery process. Specific objectives include:

- 1- Establishment of a paperless environment
- 2- creation and integrity of the longitudinal patient record
- 3- instant access for enhanced medical decision-making
- 4- Advanced diagnosis, interpretation and analysis for enhanced delivery of health services
- 5- Statistical data generation in relation to unlimited parameters
- 6- To assure decisions are reflective of a reliable and/or team decision-making

Functionality:

- Graphic user Interface
- On-line help pertaining to system's functionalities
- Integration with the Appointment system
- Integration with the master patient index (MPI)
- Integration with the pharmacy system
- Analysis of the likelihood of alternative outcomes among physicians (decision analysis)
- Generation of transactions as printouts
- System response time, accuracy, reliability, and ease of use
- Flow charts or mockups of the graphical user interface
- Patient safety, especially as it relates to errors made by clinicians
- Keyboard use for data entry is minimized, compensated by a drop-down list
- Search engine is available
- Arabic support is included for all user functions

Authentication and Authority:

The system ensures high security, integrity, and confidentiality through full information log to the system by the administrator and defined users. The most important participants in the health care delivery system are the patients and their families who receive the care and the clinicians (physicians, nurses, and members of the allied health professions) who provide the care.

Considering entire populations of patients as a single participant is often valuable.

To ensure medical ethics, access to applications is permitted or denied according to the eligibility of the user.

Security:

1- On Operating System Level:

- All processes on system are known through authorized key participants
- Applications are based on a 3-Tier architecture, intranet-based, which disables accessibility by external users to the network

2- On Application Level:

Related to quality of health care, safety of the systems and their underlying software has recently become an important topic. Therefore, the database administration does not have access to user password because passwords are encrypted on a 64 bit function.

Description:

Once the patient is encountered at the physician's clinic, his family's and personal profile are automatically viewed by the doctor. The healthcare professional is capable of revising the patient's profile while highlighted and pinpointing critical information such as disease indicators or vital signs. The physician, after examination, adds on the patient's file the chief complaint, symptoms, results and medications prescribed, if any. To further investigate about the nature of diagnosis, the physician is capable of requesting an online order for lab tests or radiology

examination by priority of analysis, while taking into account the exclusion of duplicate orders. Diagnosis is further finalized as text or selected from a drop down code list.

To ensure employee safety, the system is apt to produce immediate acknowledgments of contagious patients so that proper actions/precautions are administered. Additionally, due to its continuous update in parallel with the processes established announcements of defined operations are disseminated, as in the execution of a medical order. In consequence, orders are not prone for modification when in-process, but are suited for prior adjustment. Additional requests are recognized as screen alerts, and later dismissed when results are viewed by the physician.

According to specialty, physicians are given access to modules that relate to them, whereby each module is integrated with others to allow communication between doctors and receive lists of differential diagnosis for enhanced healthcare outcomes, and to keep records of the patient between and within the healthcare centers. Aside clinician related modules, the system is integrated with the appointment system where the physician can automatically view his everyday appointments and request an appointment for follow-up.

Upon follow-up, the physician is provided with alternative dates and timings to assign an appointment, as the appointment system is incorporated in the clinician system. The follow-up consultations are provided by default as a timely-based scheduling by week, month and year, as well by recurrence. Such a facility enables the health care practitioner to remind patients of their due appointments ahead of time since patients have a tendency to misplace the reminder slip.

According to ID number which reflects the specialty of the doctor, drug lists are perceived to facilitate choice. However, due to integration with the pharmacy system, all features of the latter system are made available to the physician utilizing the clinician module, that is viewing the availability of medication for prescription and dispensing by the pharmacist, repeat prescriptions, and the warnings of patient's data conflicting with any proposed therapy (allergy, drug interaction, dosage appropriateness as compared to patient's). In cases of prescribing a drug under control, the physician is reminded by the system that he ought to prepare a justification report.

At times, the physician might need to refer patients to different specialists and/or medical centers. Referral cases are noted down with a specified form of the patient record, along with updates of the referred consultation. Referred physicians, like the family medicine doctors, are provided with the forms that can be customized according to their need of use, and are manipulated as a free text filling.

The clinician module is a collection of various information technology modules, assembled together to form a unique system to enhance medical outcomes, hence increase patient satisfaction. The system provides the doctor with an easy to use interactive system, comprised of:

1. Consultation file
2. OBS Module
3. E.N.T. Module
4. Cardiology Module
5. Ophthalmology Module
6. Neurology Module

7. Nephrology Module
8. Pediatric Module
9. Gastroenterology Module
10. Dermatology Module
11. Dental Module

Consultation file:

It is a customized template for any type of specialty to allow flexibility in storing information. It is where the physician firstly steps in, and checks responses of other doctors as to where the patient was referred to, in junction to each doctor's analysis as per patient's case. Physicians are trained to develop their own list so to be adept of generating templates and forms that will ultimately bring about a unified medical record.

OGER MEDICAL INFORMATION SYSTEM

Family File | Patient File | Medical Visit | Consultation File | Immunization Record | Nurse Sheet | Obstetrical File

| Allergies | Problems List | Medication List | Radiology Results | Laboratory Results | Other Test Results |

Tarik Al Jadaedah 02/04/2008

User: Nourredding El-Kouache

Consultation Reply
 Present Illness
 Vital Signs
 Physical Exam

Patient ID: 10032837
 Patient Name: Testing Patient
 Log off

Consultation
View Consultations

Vital Signs
 38 C | 169 cm | 55 kg | 0 bpm
 BMI: 19.257
 Sitting: 0 | 0
 Standing: 0 | 0
 Save

OBS

Once the OBS-GYN physician logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [OBS-GYN] is displayed. When the doctor clicks on this button, the OBS-GYN orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by the family doctor.

As a prerequisite, the gynecologist have to fill in “Antepartum” information, which supports information regarding patient’s history of infertility, menstrual period, genetic screening, infection history, vital signs...etc.

The screenshot displays the OGER MEDICAL INFORMATION SYSTEM interface. The patient's name is Yarik Al Jadoedah, and the user is Nauredalina El-Kusfih. The patient ID is 1002227. The interface shows various medical records, including Antepartum Record, Menstrual History, and Pregnancy Documentation. The Antepartum Record section includes fields for Growsda (5), Para (6), Abortions (6), Ectopics, Year of Marriage (2003), Contraception Used (Yes), and OCP (Type: Definite, Duration: 3 Month(s), Date: 10/4/2003, Used Upon Conception: Tentative, Final (EDD): 16/03/2004, Blood Group: A-). The Menstrual History section includes Menarche Age (8 year(s)), Frequency (Regular), Amount (Scanty), and Duration (5 Day).

Antepartum Record			
Pregnancy Documentation:			
Home Test			
Blood Test			
Urine Test			
Growsda:	5	Full Term:	5
Para:	6	Induced:	5
Abortions:	6	Spontaneous:	5
Ectopics:		Multiple Births:	5
Year of Marriage:	2003	History of Infertility:	Yes
Contraception Used:	Yes	Duration:	3 Month(s)
Type OCP:	Definite	Date:	10/4/2003
Used Upon Conception:		Tentative (EDD):	16/03/2004
Final (EDD):	16/03/2004		
Blood Group:	A-		
Menstrual History:			
Menarche Age:	8 year(s)	Frequency:	Regular
Amount:	Scanty	Duration:	5 Day

When antepartum data is complete, the gynecologist proceeds with filling prenatal notes, along with follow-up records of medical orders (medications, lab tests and ultrasound examination and/or abnormal findings).

The screenshot displays the OGER Medical Information System interface. At the top, there is a header with the system name and a logo. Below the header, there are navigation tabs for 'Family File', 'Patient File', 'Medical Note', 'Consultation File', 'Immunization Record', 'Nurse Sheet', and 'Operational File'. A secondary navigation bar includes links for 'Allergic', 'Problems List', 'Medication List', 'Radiology Results', 'Laboratory Results', and 'Other Test Results'.

The main content area is divided into several sections:

- Patient Information:**
 - Tank Al Jadeedah**
 - User: Noursiddiq El-Kasabir
 - Patient ID: 10022037
 - Patient Name: Testing Patient
 - Log off button
- Antepartum Data Table:**

Date	Weeks Of Gestation	Fundal Height	FHR Present	Fetal Movement	Present Position	Prematurity Signs-Symptoms	Edema	Cervicocoxam	Bleeding
09/04/2003	34	34	No	Present	34	Present	diff		222
- Urine Dipstick Table:**

Date	Urine Dipstick	Other PE	Note	Orders
		Body Part	Description	
09/04/2003		Heart	sdds	sdds
- OBS Consultation:**
 - View Antepartum
 - Past Prenatal Notes
 - View Post Partum

All orders are stored to patient files; their results are viewed by the gynecologist when finalized, and could be released to the patients upon their request. The gynecologist notes down information regarding delivery and post partum conditions of the mother and the newborn.

The screenshot displays the GGER Medical Information System interface. At the top, there is a navigation bar with tabs for Family File, Patient File, Medical Visits, Consultation File, Immunization Record, Nurse Sheet, and Obstetrical File. Below this, a secondary navigation bar includes links for Allergies, Problems List, Medication List, Radiology Results, Laboratory Results, and Other Test.

The main content area is divided into several sections:

- Patient Information:**
 - User: Nouraddin El-Kouche
 - Patient ID: 10032937
 - Patient Name: [Redacted]
 - Testing Patient: [Redacted]
 - Log off button
- Post Partum:**
 - Delivery Date: 06/04/2003
 - at 0 Weeks of gestation
 - Type of Delivery: [Redacted]
 - Place of Delivery: [Redacted]
 - Length of Labor: 0 hours
 - Complication: Yes
 - Description: gfh
 - Anesthesia Type: [Redacted]
- Baby:**

Gender:	Weight:	Condition:	Perinatal Mortality:
Female	4	dff	No
Female	4	adf	No
Female	4	dfd	Yes
- Present Illness:** d
- Vital Signs:**

[Icon]	0	[Icon]	0	[Icon]	0	[Icon]	Regul
[Icon]	Normal	[Icon]	0	BMI	0		
[Icon]		left	[Icon]	Standing	0 / 0		

ENT

Once the ENT specialist logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [ENT] is displayed. When the doctor clicks on this button, the ENT orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



The screenshot shows the OGER MEDICAL INFORMATION SYSTEM interface. At the top, there is a navigation bar with a logo on the left, the text "ENT" in large red letters, and a menu on the right with options: "Consultation Orders", "Visit File", "Visit Images", and "Patient orders". Below the navigation bar, patient information is displayed: "Hubiesdine Kremluh", "Politenk ID: 10932837", "Name: Tenling Dabek", and "Age: 68". The main content area features a table of ENT orders with the following columns: "OrderDate", "DoctorName", "OrderReason", and "Frequency". A "Reply" button is located to the right of the table. At the bottom of the table, there are navigation links: "< Previous" and "Next >".

OrderDate	DoctorName	OrderReason	Frequency
15/04/2008	Nouredine El-Kasche	diagnosis	Regular
22/05/2008	Nouredine El-Kasche	anxiety	VeryUrgent
22/03/2008	Nouredine El-Kasche	examination	Regular
14/03/2008	Nouredine El-Kasche		VeryUrgent
18/01/2008	referral person	polip	Regular

The date of the order, the name of the doctor who ordered ENT and the order reason are displayed.

A menu containing Ear, Nose, Oral Cavity, Face/Neck, Larynx, and Diagnosis is also displayed.

Once the doctor clicks on Ear, a left ear or right ear selection is processed. For each ear, the physician chooses whether normal or abnormal, whereby in abnormal, the doctor specifies the abnormalities of the ear. Each abnormality has a universal code that is internationally standard.

The same procedure is applied for the Nose, Oral Cavity, Face/Neck, and Larynx. Afterwards, the doctor fills a diagnosis page and suggests a treatment plan.



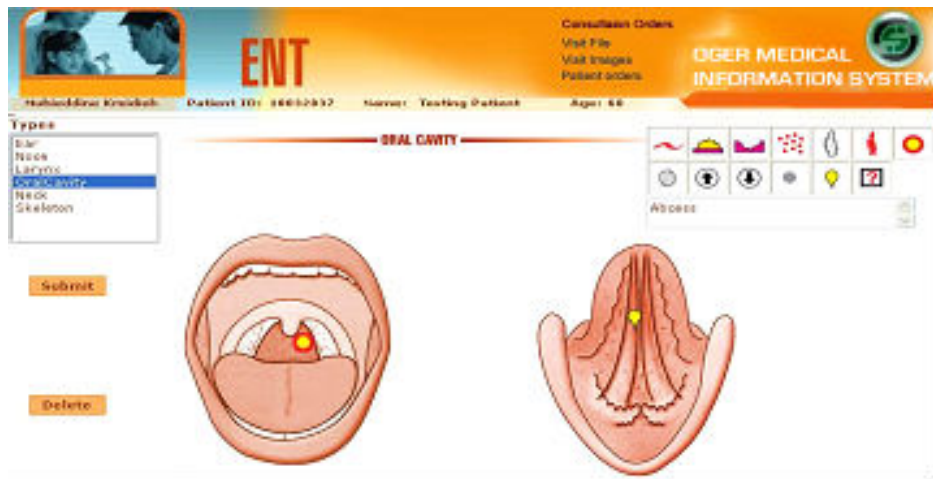
After the doctor fills in the above information, he clicks on Visit images.



A menu will appear demonstrating images for the Ear, Nose, Larynx, Oral Cavity, Neck, and Skeleton.

Once the doctor clicks on Ear, an image of right and left ear will be displayed in addition to a collection of standard ear abnormalities. The doctor is capable of dragging an abnormality image and dropping it in the specific place on the image.

The same procedure is replicated for the Nose, Larynx, Oral Cavity, Neck, and Skeleton.



After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab or xray or any other test necessary for the patient.



These orders will be displayed in the lab or xray or any other department so that the patient can undergo these tests.

After the patient undergoes the tests ordered by the doctor, the results will be filled, and thereafter the ENT doctor will be able to see the test results of all the tests done for the patient.

Cardiology

The 'Cardiology' module is composed of two versions:

I. Adults:

Once the Cardiologist logs on, he puts the ID of the patient and clicks on "Consultation File". A button [Cardiology] is displayed. When the doctor clicks on this button, the Cardiology orders of the respective patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



Order Date	Doctor Name	Order Reason	Frequency
03/03/2015	Noareddine El-Kouache	ghh	Regular
05/07/2014	Noareddine El-Kouache	sdof	Urgent
05/07/2014	Noareddine El-Kouache		Urgent
10/06/2013	Noareddine El-Kouache	rrt	Urgent
06/07/2012	Noareddine El-Kouache	hdq sp	Urgent

The date of the order, the name of the doctor who ordered Cardiology and the order reason are displayed.

A menu containing History, Vital Signs, Risk factor, Physical exam, EKG, Lab profile, Chest XRay, Echo/Valves, Stress test, 24Hrs blood pressure, 24Hrs holter monitoring, Thallium scan, CABG, PTCA, and Diagnosis is displayed.

Once the doctor clicks on History and fills it, he proceeds to the Vital Signs and fills the data. The doctor will do the same thing for Risk factor, Physical exam, EKG, Lab profile, Chest XRay, Echo/Valves, Stress test, 24Hrs blood pressure, 24Hrs holter monitoring, Thallium scan, CABG, PTCA. Then the doctor fills a diagnosis page and suggests a treatment plan.



After the doctor submits these data, he clicks on Visit images.



A menu containing Echocardiography and Catheterization is displayed.

Once the doctor clicks on Echocardiography, an image of the heart will be displayed in addition to a collection of standard heart problems. The doctor can drag an abnormality and drop it in the specific place on the image.

The doctor will do the same thing for Catheterization.



After the doctor submits the data, he clicks on patient order, where he is capable of requesting a lab, xray, or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo them. When the results are executed, the cardiologist will be able to see the test results of all the tests done for the patient.

II. Pediatric

The 'Pediatric Cardiology' module is a more specific version of the cardiology-adult one, as it targets an age group of 0 to 12 years.

Once the cardiologist logs on, he puts the ID of the patient and clicks on "Consultation File". A button [Pediatric] is displayed. When the doctor clicks on this button, the Pediatric orders of this patient appear. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.


OrderDate	DoctorName	OrderReasons	Frequency
2006/02/02	Nouradina El-Khouche	EKG	Very Urgent
2006/02/02	Fida Sultan	Mussab	Urgent
2006/02/02	Patsy Mookhar	Ruxp	Very Urgent

The date of the order, the name of the doctor who ordered Pediatric and the order reason are displayed.


A menu containing Maternal, Risk factor, Symptom, Result, EKG, Echo Cardiac, MRI, CT Scan, Holter Monitor, Stress Test, Thallium Scan, Lab Profile, Vital Signs, Cardiac CAT, Diagnosis, Surgery, Physical Exam is displayed.

The doctor clicks on Maternal and fills the data.

The cardiologist replicates the same steps for Risk factor, Symptom, Result, EKG, Echo Cardiac, MRI, CT Scan, Holter Monitor, Stress Test, Thallium Scan, Lab Profile, Vital Signs, Cardiac CAT, Surgery, Physical Exam Then the doctor fills a diagnosis page and suggests a treatment plan.


PEDIATRIC CARDIOLOGY

 Consultation Orders
 Visit File
 Visit Images
 Patient orders

OGER MEDICAL INFORMATION SYSTEM


Dr. Hassan Ibrahim | Patient ID: 0012345 | Name: Test@y.hakim | Age: 10

Risk Factors Previous Next

High	Normal	Yes	No	Comments
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Diabetes <input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Prolonged fever in childhood <input checked="" type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	for > 30 yrs	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input type="checkbox"/>			

Associated Abnormality: Comments:

Add Associated Abnormality Comments Edit Delete

< Previous Next >

Submit

After the doctor submits these data, he clicks on Visit images.


PEDIATRIC CARDIOLOGY

 Consultation Orders
 Visit File
 Visit Images
 Patient orders

OGER MEDICAL INFORMATION SYSTEM


Dr. Hassan Ibrahim | Patient ID: 0012345 | Name: Test@y.hakim | Age: 10

Catheterization

Types

Submit

Delete





An image for the heart of a child is demonstrated.

The doctor can drag an abnormality and drop it in the specific place on the image.



After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab, xray, or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo these tests.

After the patient undergoes the tests ordered by the doctor, the results will be filled, and thereafter the Pediatric doctor will be able to see the test results of all the tests done for the patient.

Ophthalmology

The ‘Ophthalmology’ module provides the doctor with a user-friendly interactive system. Once the Ophthalmology doctor logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [Ophthalmology] is displayed. When the doctor clicks on this button, the Ophthalmology orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



The screenshot displays the Ophthalmology module interface. At the top, there is a header with an eye icon, the text 'OPHTHALMOLOGY', and 'DGER MEDICAL INFORMATION SYSTEM'. Below the header, patient information is shown: 'Patient ID: 58632037', 'Name: Testeng Haberd', and 'Age: 58'. The main area contains a table of orders with the following data:

Order Date	Order Name	Order Reason	Priority
12/23/2003	Rana Yamout	akapap(ia)	Request
02/28/2003	Mouradine El-Kouche	OPHT	URGENT
10/28/2002	Mouradine El-Kouche	OPHT	Request
10/28/2002	Mouradine El-Kouche	OPHT	URGENT
08/12/2004	Mouradine El-Kouche	akapapap(ia)	Request

At the bottom of the table, there is a 'Reply' button and a footer that reads '© Medware - 2003'.

The date of the order, the name of the doctor who ordered Ophthalmology and the order reason are displayed.

A menu containing History, Abnormalities and Diagnosis is shown.

Once the doctor clicks on History and fills it, he will click on Abnormalities and fill the data. Then the doctor fills a diagnosis page and suggests a treatment plan.



After the doctor submits these data, he clicks on Visit images.



A menu containing Eye and Retina is displayed.

Once the doctor clicks on “Eye”, an image of the eye will be displayed in addition to a collection of standard ear abnormalities. The doctor can drag an abnormality and drop it in the specific place on the image.

The doctor will do the same thing for Retina.




After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab or xray or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo these tests. When results are confirmed, the Ophthalmology doctor will be able to view them.

Neurology

The 'Neurology' module provides the doctor with an easy to use interactive system. Once the neurology doctor logs on, he puts the ID of the patient and clicks on "Consultation File". A button [Neurology] is displayed. When the doctor clicks on this button, the neurology orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



OrderDate	DoctorName	OrderReason	Frequency	
18/07/2005	Nauredine El-kouche	bkjhjJhu	Urgent	Reply
24/05/2005	Nauredine El-kouche		Regular	
28/01/2004	referral person	REFERRAL VISIT	Regular	
28/09/2003	Mano Oumar	headache of unknown reason	Urgent	

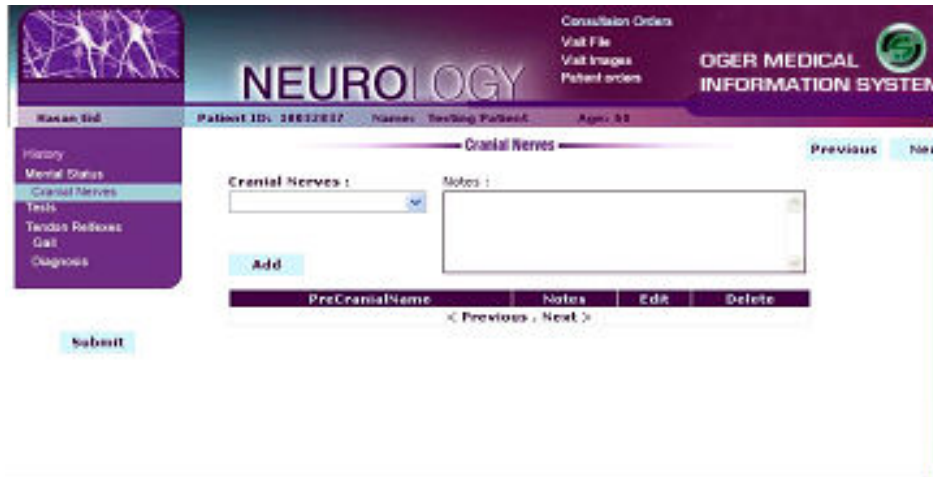
< Previous . Next >

The date of the order, the name of the doctor who ordered Neurology and the order reason are displayed.

A menu containing History, Mental Status, Cranial Nerves, Tendon Reflexes, Gait and Diagnosis is displayed.

Once the doctor clicks on History and fills it, he will click on Abnormalities and fill the data. The doctor fills data about Mental Status, Cranial Nerves, tests,

Tendon Reflexes, and Gait. Then the doctor fills a diagnosis page and suggests a treatment plan.



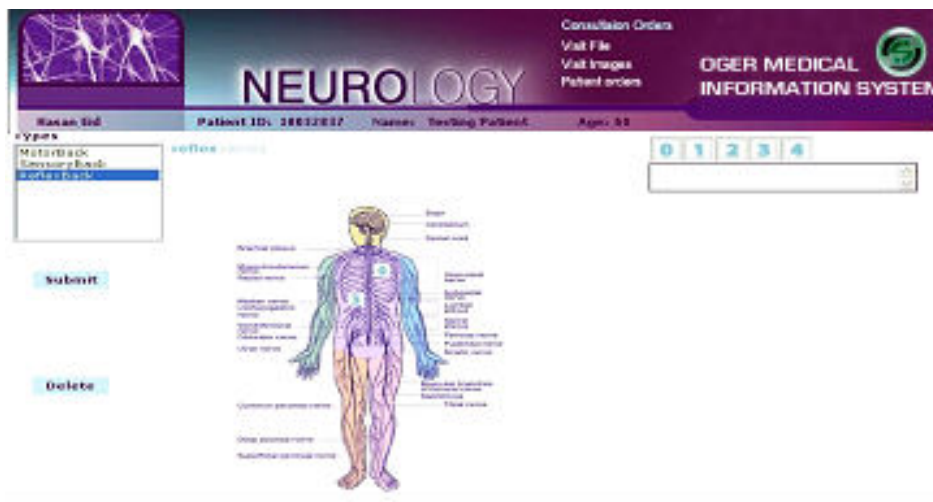
After the doctor fills in all the above data, he clicks on Visit images.



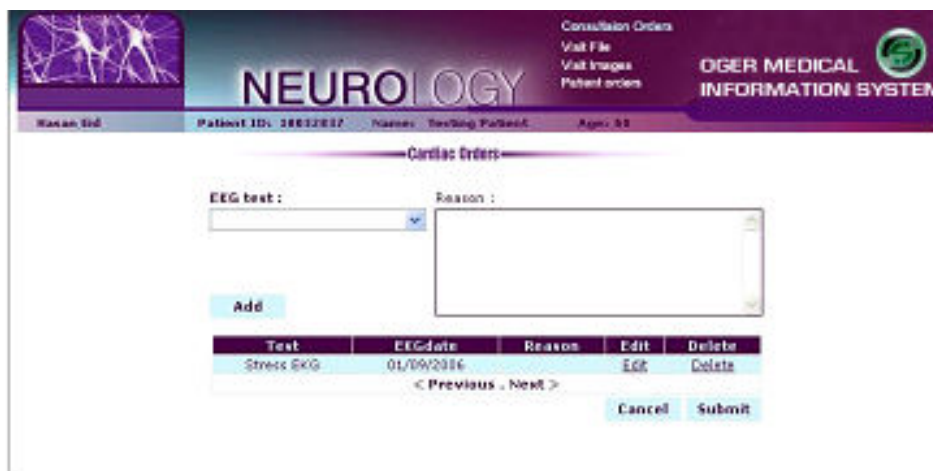
A menu containing Motor Back, Sensory Back, and Reflex Back is then revealed. Once the doctor clicks on Motor Back, an image of the body nerves will be displayed in addition to a collection of standard ear abnormalities. The doctor is

capable of dragging an abnormality and dropping it in the specific place on the image.

The doctor will replicate the same procedure for Sensory Back, and Reflex Back.



After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab or xray or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo these tests. When the results are furnished, the neurologist will be able to view the correspondent one for each patient.

Nephrology

The ‘Nephrology’ module provides the doctor user-friendly interactive system. Once the nephrologist logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [Nephrology] is displayed. When the doctor clicks on this button, the Nephrology orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



OrderDate	DoctorName	OrderReason	Frequency
19/07/2005	Nouredine El-Kouche	Haccan Hajjar	VeryUrgent
19/07/2005	Nouredine El-Kouche	asdad	Urgent
18/07/2005	Nouredine El-Kouche	saldfartd	VeryUrgent
12/05/2005	Nouredine El-Kouche	aaa	Regular
11/05/2005	Nouredine El-Kouche	ad	Regular

The date of the order, the name of the doctor who ordered Nephrology and the order reason are then displayed.

A menu containing History, Vital Signs, Physical Exam, Lab Tests, Radiology, and Diagnosis is also shown.

Once the doctor clicks on History and fills it, he will click on Abnormalities and fills the data. The nephrologist records data about Vital Signs, Physical Exam, Lab Tests, and Radiology. Then the doctor fills a diagnosis page and suggests a treatment plan.



After the doctor submits these data, he clicks on Visit images.

Then drags an abnormality and drop it in the specific place on the image.

After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab, xray, or any other test necessary for the patient.



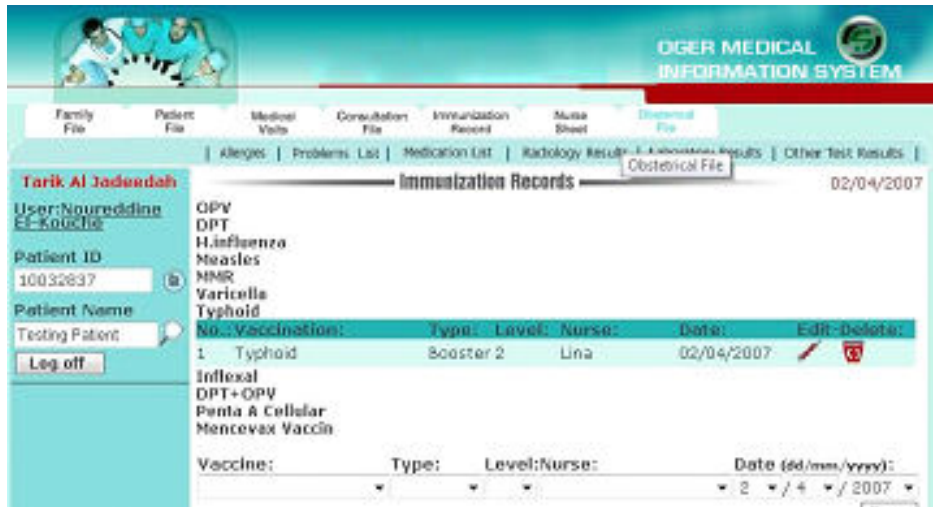
These orders will be displayed in the lab or xray or any other department so that the patient can undergo these tests.

After the patient undergoes the tests ordered by the nephrologist, the results will be filled, and thereafter the nephrologist will be able to see the test results of all the tests done for the patient.

Pediatric

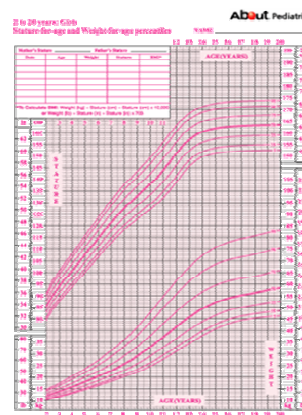
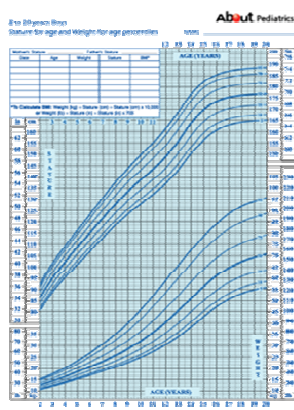
The 'Pediatric' module provides the doctor with an easy to use interactive system. Once the pediatrician logs on, he puts the ID of the patient and clicks on "Consultation File". A button [Pediatric] is displayed. When the doctor clicks on this button, the Pediatric orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by the family doctor.

The pediatrician starts by adding to the baby's profile, and open a vaccinations registry. For later stages, pediatricians are capable of reviewing the past immunizations so to update them and record new ones to be performed.



What characterizes the pediatrics module is that descendants' growth can be monitored based on a time interval and according to age and sex. Graphical charts are generated as to visually monitor childhood development. Accordingly, the pediatrician can decide about the normal health conditions of each patient.

Children's Growth Chart



Gastrology

The ‘Gastrology’ module provides the doctor with an easy to use interactive system. Once the gastrologist logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [Gastrology] is displayed. When the doctor clicks on this button, the Gastrology orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.

OrderDate	Doctorname	OrderReason	Frequency
10/07/2005	Noureddine El-Kouthe		Urgent
02/06/2005	Noureddine El-Kouthe	new one	VeryUrgent

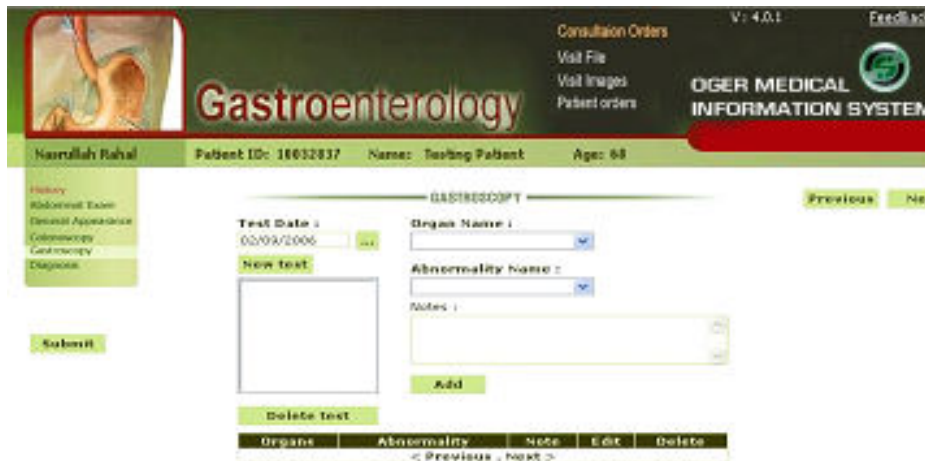
The date of the order, the name of the doctor who ordered Gastrology and the order reason are recorded and displayed.

A menu containing History, Abdominal Exam, General Appearance, Colonoscopy, Gastroscopy, and Diagnosis is displayed.

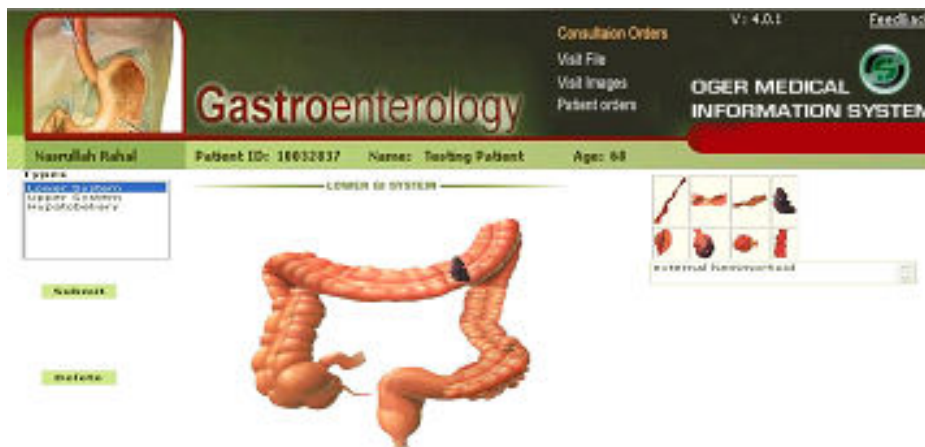
Once the doctor clicks on History and fills it, he selects the type of “Abnormality” to complete the data.

The gastrologist applies the same steps for Abdominal Exam, General Appearance, Colonoscopy, and Gastroscopy.

Then the doctor fills a diagnosis page and suggests a treatment plan.



After the doctor submits these data, he clicks on Visit images.



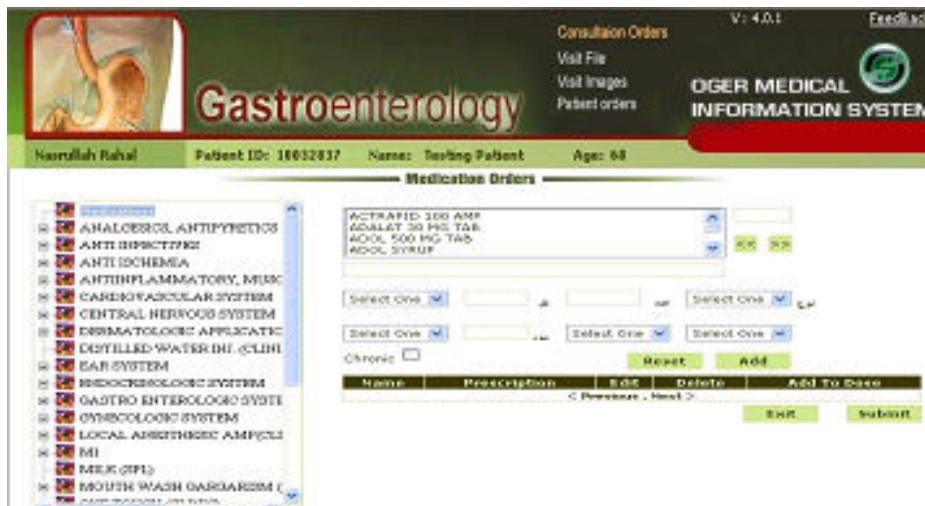
A menu containing Lower System, Upper System, and Hypatobeliary is displayed.

Once the doctor clicks on Lower System, an image of the lower system will be displayed in addition to a collection of standard ear abnormalities. The doctor can drag an abnormality and drop it in the specific place on the image.

The doctor will do the same thing for Upper System, and Hypatobeliary.



After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab, xray, or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo these tests.

After the patient undergoes the tests ordered by the doctor, the results will be filled, and thereafter the Gastrology doctor will be able to see the test results of all the tests done for each patient.

Dermatology

The ‘Dermatology’ module provides the doctor with an easy to use interactive system. Once the dermatologist logs on, he puts the ID of the patient and clicks on “Consultation File”. A button [Dermatology] is displayed. When the doctor clicks on this button, the Dermatology orders of this patient are displayed. The doctor clicks [Reply] to reply to this order which was sent by a family doctor.



OrderDate	DoctorName	OrderReason	Frequency
21/02/2006	Neureddine El-Koache	skin lesion	Regular
18/01/2006	Neureddine El-Koache	xgh	Urgent
28/10/2005	Neureddine El-Koache		SuperUrgent
28/09/2005	Neureddine El-Koache	Testing System	VeryUrgent
19/07/2005	Neureddine El-Koache	frabvrtartrtertrtrtrtr	Regular

< Previous , Next >

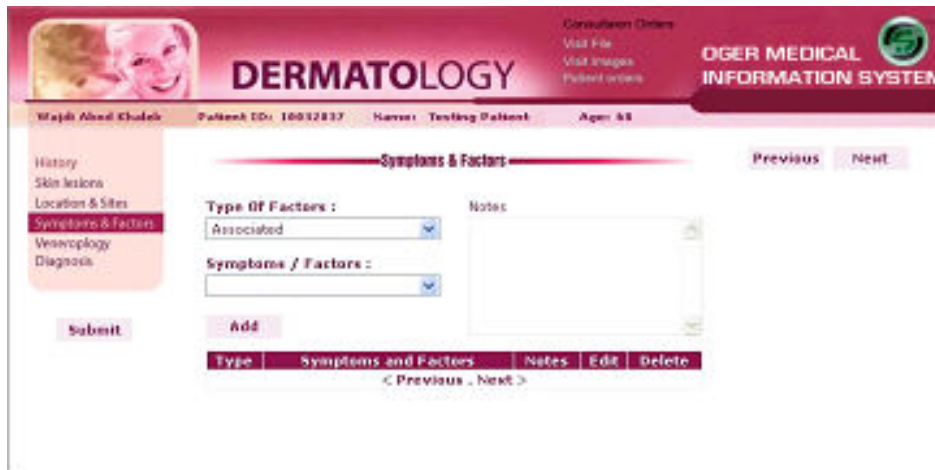
The date of the order, the name of the doctor who ordered Dermatology and the order reason are then recorded and demonstrated.

A menu containing History, Skin Lesions, Location & Sites, Symptoms & Factors, Veneroplogy and Diagnosis is displayed.

Once the dermatologist clicks on History and fills in the data, he is capable of selecting the type of ‘Abnormality’ to complete the data.

The dermatologist replicates the same procedure for Skin Lesions, Location & Sites, Symptoms & Factors, Veneroplogy and Diagnosis.

Then the doctor fills a diagnosis page and suggests a treatment plan.



After the doctor submits these data, he clicks on Visit images.



Two images (a front body and a back body) are displayed.

Once the doctor clicks on a part of the body, an image of this part appears, in addition to a collection of standard skin abnormalities. The doctor can drag an abnormality and drop it in the specific place on the image.

The doctor will do the same thing for other parts.



After the doctor submits the data, he clicks on patient order. In patient order, the doctor can order a lab, xray, or any other test necessary for the patient.



These orders will be displayed in the lab, xray, or any other department so that the patient can undergo these tests.

After the patient undergoes the tests ordered by the doctor, the results will be filled, and thereafter the dermatologist will be able to view the test results of all the tests done for the correspondent patient.

Dental Chart

The dental module is a sole application integrated within the clinician information system to facilitate the utilization of common features. It is a graphical representation integrated that shows any procedure performed on patient's teeth: crown, bridge, endo, filling, implant, post, extraction, pathology, decay, denture, and treatment plan. The dental chart reflects the growth of each type of tooth, and is divided by age intervals: 0 to 2 years 2 to 10 years, and from 10 years and more.

All procedures and actions established are recorded by a dropdown list or as graphics, which can be transferred into text to generate reports. The reports will be added to patient files to store patients' history.

Dental performance is divided by price, type and location. Before getting started, dentists' operations are categorized as to whether the work was done by the dentist himself, or will be done by him in the future, or was done by an external doctor.

The system beholds functionalities as of the conversion from milk to adult, reveals broken teeth with images of different cases, and produces sound pertaining to information about the history of the tooth selected.

Dental System

Date: 27/02/2007 In Patient

Patient ID: 10032837 Patient Name: Testing Patient

ADULT

- Restorative Dentistry
 - Composite
 - Amalgam
 - Post Retained Restoration
- Prothodontics
- Surgery
 - Extraction
 - Appicoectomy
 - Frenectomy
 - Cystotomy
 - Major Surgery
 - Biopsy
 - Minor Surgery
- Endodontics
- Periodontics
- PEDODONTICS

	Patient ID	Patient Name	Procedure Name	Quantity	
Edit	10032837	Testing Patient	Composite	1	Delete
Edit	10032837	Testing Patient	Amalgam	1	Delete
Edit	10032837	Testing Patient	Cystotomy	1	Delete
Edit	10032837	Testing Patient	Biopsy	1	Delete