

Otology-Neurotology Database

(ONDB)© a new integrated user-friendly database to manage patient's clinical, surgical and audiological information.



Available versions: Stand-alone or Client/Server
For Mac or PC - Hardware requirements: Pentium 4 / iMac minimum
1 Gb of RAM minimum - 2 Gb recommended - Minimum Windows XP SP3
and later - Mac OS X 4.11 and later - Compatible LION.



Description and technical specifications

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ONDB definition.

ONDB is an appropriate software in the middle of Otolaryngology, it allows you to generate a patient's file and register all your surgical and audiometry performed. All the criteria for analysis of your surgery are pre-entered, just select the most suitable, you can even complete the pre-selected lists. A module "Result" will allow you to analyze some or all of your interventions with the greatest accuracy, in terms of what are the best results you get for this type of patient with this type of prosthesis, for example.

ONDB is programmed in 4D (<http://www.4D.com>) (<http://www.4D.com>)

We are 4D Partner, which means that in case of problem specific programming, we have the support of the Society 4D to solve our problem. ONDB requires QuickTime to fully exploit the characteristics of embedded images, and those that you import into the database.

QuickTime is free and you can download it from Apple website:

English	http://www.apple.com.uk/quicktime/download/
French	http://www.apple.com.fr/quicktime/download/
Chinese	http://www.apple.com.cn/quicktime/download/



Installation



Network version : CLIENT / SERVER :

A ONDB technician will come in handy for this installation. Do not attempt to make this installation. It requires some technical skill server, rights management and network knowledge.

Single-user version: after downloading the latest version of the ONDB website <http://www.ondb.org>, run the installer for Mac or PC,

By default the installer will install ONDB:



"Applications" folder and a ONDB shortcut on the desktop.



"Program Files" folder and a ONDB shortcut on the desktop.

This repertory created is important because it will contain all your data, do not move this folder because ONDB during the upgrades, will always find this folder to change the old files (your actual data is always preserved).

After the installation, click to "OK".

To start ONDB, double-click it. Enjoy



Première utilisation



English



Français



中国

At the first use of ONDB, it will be asked:

- language in which you want to work (English, French, Chinese)
- to choose a username and a password.



This is your first use of ONDB. Please choose your Login and Password

☒ ☐

User

Example : WHITE John

Name and First Name

Login user

Password

Please, confirm your Password

CAUTION remember this password,

It is regarded as the Administrator password, then you will be asked for any changes in your patient file to modify file (it is a measure of security and protection of your data in case of shared data, only you can modify your own patient file, giving the administrator password and the reason for the proposed amendment).

You will then have the possibility to add users, but they will not have access to changes in forms, unless you provide them the Administrator password.



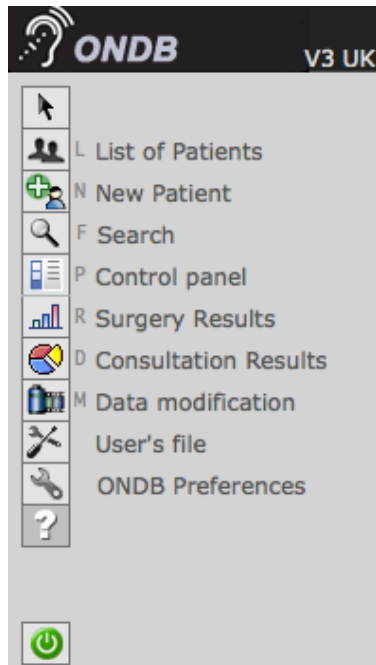
Validate



Cancel



Control panel of ONDB



This tool will allow you to switch between all the open windows.
The list of patients directly accessible from the icon.



Enter a new patient file.



Find a patient according to several criteria



Accessing Pop-up list, all diseases are classified with their respective criteria.



Results and statistics of your surgery.



Results of the consultations

Access to the list of files modified



Identity Card Users

Preferences ONDB



About ONDB





List of Patients



Switch between all your open windows.

Validate and close the list of Patients.



Add a new patient file.



Delete a patient file (for security reason, you can not delete patient file if this patient file



contain audiometric file or pathology file).

View all selection.

View a Subselect.

Publisher Research.



Set sort on the current selection.



To state semi-automatic.

To define and print labels.



Print a selection.



Make graphs to the current selection



By default, the list of patients is sorted by name and surname of the patients. Each selection you have on the screen tells you the numbers of men, women and total selection.

A double click on the line will bring up a patient's detailed specs. The window of the list of patients is a floating window, you can move on your screen.



Procedure for Entering data

Patient's File

Name: White
Primary Care:

Maiden Name: Patient Number (NHS):
Gender: Date of Birth: 00/00/00

Address:

Postal Code: City:
Profession: Country:

Phone: Home: Office:
e-mail: Mobile:

Surgery

Name: White
Entered by:

Otosclerosis - Primary Surgery - Right
Date: 28/12/11

	Pre-op	Post-op	Item
ABG	0	0	Special Hearing Aid
Controlat. ABG	0	0	Stomach
BC	0	0	Hearing loss
AC	0	0	Tinnitus
IAD	0	0	Dizziness
Controlat. BC	0	0	EAC
Controlat. AC	0	0	Tuning Fork Test
BC Evol	0	Follow-up	Tympanic Membrane
AC Evol	0		Family History
			Personal History

Audiogram graph showing frequency (125, 250, 500, 1000, 2000, 3000 Hz) and intensity (10, 20, 30, 40 dB). Red lines and circles indicate data points. Yellow circles with numbers 3 and 4 are placed over the graph.

It is very important to follow the entry procedure described below in order to generate accurate statistics.

- 1) ENTERING THE DATA PATIENT
- 2) ENTERING THE FILE OF PATHOLOGY
- 3) ENTERING THE PRE-OPERATIVE AUDIOGRAM
- 4) ENTERING THE POST-OPERATIVE AUDIOGRAM (if necessary)

If you perform surgery on a patient, you must enter the Administrative Data and enter the details and then enter the Pathology file and then the audiometric Pre-operative file who is affected ...

After the surgery file, you can enter another sheet audiometric postoperatively.

If the patient comes to see you in 1 month or 1 year 6 months, you can enter values Postoperative Audiometric to this new date. Statistical calculations will default on the last post-operative, however, you may request a reduction of less than one week, for example to have the current statistics with the results immediately after surgery.



1) Patient File (1/2)

Navigation icons: [Back] [Forward] [Print] [Delete] [Refresh] [Home] [Search] [Help] [Logout]

Name : **White** First name : **John** 11 12 00025

Patient's File Primary Care ▶ [] Entered by: [] Number File []

Maiden Name [] Patient Number (NHS) []

Gender ▶ Male Date of Birth 10/12/89

Address []

Postal Code [] City []

Profession [] Country ▶ []

Phone Home [] Office []

e-mail [] Mobile []

Comments []

Date	Consultation

Date	Pathology	Type of Surgery	
28/12/11	Otosclerosis	Primary Surgery	Right

Date	Title

Date	Documents

Date	Audiometry and Follow-up
1 28/12/11	Pre-operative
2 28/12/11	Post-operative



1) Patient File (2/2)

Name : **White**

Gender ▶ **Male**

Date of Birth **10/12/89**

You must enter the patient's administrative data, some criteria are necessary because of the statistics required for the calculations:

The name, gender (male or female), date of birth.

The format for entering date of birth is the language of your computer and then your country.

Example:

- French Format: DD / MM / YYYY
- English Format: YYYY / MM / DD

The patient file lists:

- Diseases (surgical patient)
- The pictures used for the Patient,
- The documents of the Patient File
- The audiometric tests

You must select a pathology in the list to see the audiometric tests that are affected. This is very useful in the case of multiple surgeries. Similarly, to create an audiometric testing, you must select the surgical procedure to which it relates.



Allows you to add a record (Intervention, Photo, Document, or audiometry)



<http://www.ondb.org>



<http://www.ondb.org>



Consultation File - details

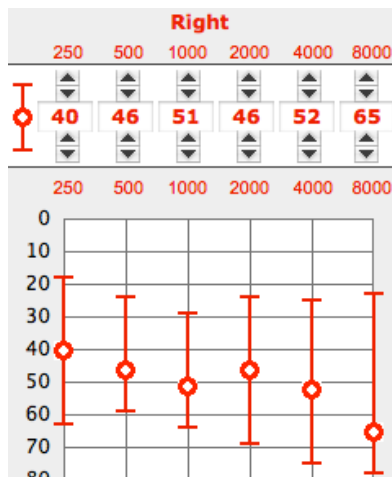
Page 1

Enter:

- The ear dominant important if you want reliable statistics in this area.

The clinical data, medical history, diagnosis and medical indications.

Fields free ear or not paired with a click on the corresponding values



The threshold with a click on the corresponding curves, you then adjust with the cursor up and down the minimum and maximum values of hearing.threshold.

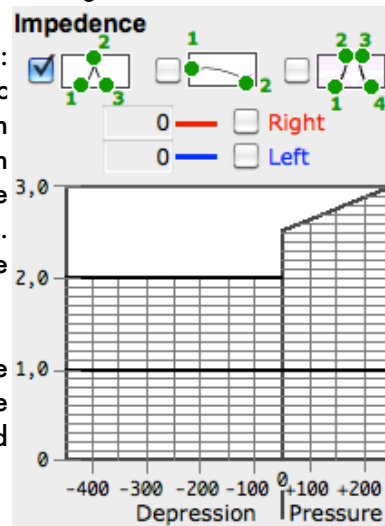
Page 2

Enter:

The Voice: click on the curve in the order specified points on the graph miniature green.

The impédancemétrie: First select the graphic you want, then click in the order of green points shown on the corresponding graph. (first click on the desired side).

The other curves can be stored directly by the input values (ABR and PEA).



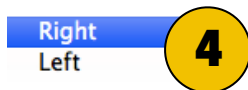
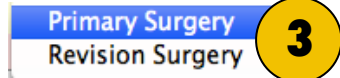
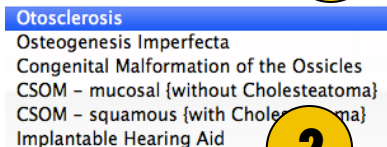
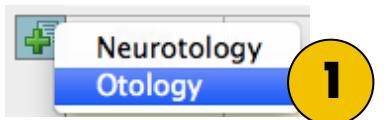



You can then set a start date and end of study, an age of study, select Male or female, or choose a risk factor to study the population.

<http://www.ondb.org>



2) Pathology File (1/2)



Bottom left of the patient file, click the green cross () to add a Pathology. You will select from a list pop-up four different criteria:

- 1) Otolaryngology and Neurotology (Choose surgical specialty),
- 2) The surgery performed,
- 3) The type of intervention, 2 or 3 choice according to the chosen surgery: Primary or Second Time,
- 4) The side affected by the surgery.

In case of non-selection of one of these criteria, the creation of the pathology file will be canceled.



2) Pathology File (2/2)

- Right	
Item	
Special	
Pre-Op Hearing Aid	
Symptoms	
Hearing loss	
Tinnitus	x
Dizziness	x
EAC	•
Tuning Fork Test	x
Tympanic Membrane	x •
Family History	
Personal History	x

The surgery file opens pre-filled with data from 1_Stage (First intervention or recovery).

You will then need to complete each item required for each tab presented on your screen with a red dot (eg tab on the left to EAC).

The column "red points" is the mandatory criteria. It is very important to fill them because they are necessary for statistical calculations.

The column "x" has multiple criteria, meaning that you can enter multiple values in the same item.

The first column shows an "R" for Recovery criteria for intervention or an "S" for Second Stage . It is given to you for information purposes only and is not therefore just to tell you what are the criteria used for statistical calculations and Recovery and Second Stage.

To enter: Take a click on the column off right in front of the item to be completed (eg left: EAC). A combo box appears on your screen, you can choose the test that best fits your case or enter a new («__ Other__ "). If you type a new test, it will be stored and will appear in your next input.

EAC

Normal

Narrow

Exostosis

__ Other __

Narrow

Simple Choice Validate



3) Pre-Audiometric File

Double	
	Date
2	28/12/11
	28/12/11

Type of Surgery	Right
Primary Surgery	Right

Date:

Today

Right

500	1000	2000	3000
15	25		

500 1000 2000 3000

After entering all the criteria of your pathology file, you can validate.

Now it is your responsibility to create an audiometric test "preoperative." Since the patient file, you select the action that you want to create an audiometric test, and then click the green cross to the left of the column "audiometry".

By default a window appears with the current date, date that you can modify to your liking.

However, note that the date of audiometric testing "preoperative" must always be less than or equal to the date of the surgery.

To enter audiometric values you have a choice of two methods:

- 1) you enter values in the corresponding boxes
- 2) Clicking directly on the chart on the desired coordinates of the point.

Once all the seizures, you can validate the audio file.



3) Post-Audiometric File

Repeat this process to create the audio post-operatively.

- 1) Select the surgery that you want to create an audio post-op test,
- 2) Click on the green cross of the audio window
- 3) Enter the date of the examination (date than the date of the pre-op)
- 4) Enter audiometric the values

Item				
Type of Follow-Up				
Ossiculoplasty		x	●	
TM/Graft/EAC		x	●	
Complications and Misc.		x	●	

This form is identical to the preoperative file has more in the lower part of the criteria on the same principle that the form of intervention.

They concern the criteria observed postoperatively.

These criteria will also be visible in the form of intervention to the tab "post surgery".

You can enter multiple postoperative audiometric data sheets spread over time. Only the latest will be reflected in the results, unless you ask a suitable decline another of your audio files.



Results

If you follow the foreclosure process, you will:

- a patient file
- a surgery file
- 1 pre-operative audiometric file
- 1 or more postoperative audiometric file

For the results of your surgery, the last audiometric file be taken into account .. However, you may request a reduction (eg 1 day) to get the results immediately after surgery.

In case you do not revisit the patient in consultation, you will not achieve its audio post-operative examination, however it will still be counted in the statistical calculations, without post-operative analysis.

Some criteria are very important for people to define your study, you must enter them to get reliable statistics:

Gender (Male / Female) and date of birth in the administrative file.

All the mandatory requirements in the audio files and intervention postoperatively. These criteria can be manager by the procedure defined in the following page with the tool: "List of pop-up"





Pop Up List (1/3)

On the tool palette to the Home screen, click the icon: Pop-up list.

A series of five columns appears when you select a row in a column, it takes place in the column immediately to its right the list of values related to it.

☒ Otology and Neurotology

Speciality	Pathology
Otology	Otosclerosis
Neurotology	Osteogenesis Imperfecta
____Other____	Congenital Malformation of
	CSOM - mucosal (without C
	CSOM - squamous (with Ch
	Implantable Hearing Aid
	____Other____

Example:

Click "Otology" in the first column, it will run right, the list of interventions practiced in Otology ("Surgery").

If you click on one of the interventions will take place on the right list of the main areas of analysis of that intervention (1-Stage, 2-Clinic).

Select one of the stadium and will run the list of topics in the field, then select one item and get a list of values associated with this item.

Functions of the various columns:

Specialty: Here you define if you want to enter other medical specialties (Ophthalmology, ENT,). If you check the option "Otology and Neurotologie", you will audiogram in the postoperative follow-up, otherwise it will be a simplified form. To enter a new specialty, double click on the line "____Autre____", enter a value and click "OK".

Surgical treatment: The list of surgical procedures that you practice. To enter a new intervention, double click on the line "____Autre____." When you select a line of action, you will see check boxes representing the characteristics of the



Pop Up List (2/3)

- ☒ With BC-CA Audiometry
- ☐ With Free Field Audiometry
- ☐ Post-op without Audio data
- ☐ With Failures Assessment

selected intervention: the different types of audiogram and the calculation of failure, you will also appear in the right column of the Fields' s be related.

Fields: two fields are mandatory and necessary for all statistical calculations, do not delete any: 1-Step, Post-operative. These two areas are created automatically if you add a new intervention. The fields correspond to the tabs you've previously seen in the response sheets. Clicking on one of the areas, you will see on the right

- ☒ Mandatory
- ☒ Multiple Choice
- ☐ Revision
- ☐ Second Stage



Domain	Item
1-Stage	Special
2-Clinical	Tympanic Membrane
2B-Pre-op Imaging	Pre-Op Hearing Aid
3-Surgery	Type of Osteogenesis
4-Ossiculoplasty	Symptoms
5-Perioperative Period	Hearing loss
Post-operative	Tinnitus

list of related topics. You can add or remove a domain. At the end of this chapter will explain how to delete a value in any column.

Topics: Each topic you select is assigned values in the right column, and a series of four checkboxes on top.

It's up to you to define what is the nature of these headings: mandatory or optional, multiple values can be entered or only one, as if this section for further surgery or a second time.

States: the list of labels related to the selected topic. these values are at the end of the chain and will be included in statistical calculations.

Modify or delete a VALUE:

In any column: Double-click the line you want to change or delete, then: Enter a new value and click OK to change



Pop Up List (3/3)

Delete the contents by pressing the delete button and click OK to permanently delete this value.

IMPORTANT: Never delete

Domain: Stage 1-and post-operative

Remember to define the character of your Headings: mandatory or optional, multiple choice or not.



Results

Select:

- 1) Entire database or pathology
- 2) If you choose "By pathology", you are required then the appropriate medical specialty,
- 3) Response you want to scan and ...

wait a few moments to do the calculations. These calculations are longer or shorter depending on the number of surgical procedures to treat. The screen that appears can be divided into three zones:

Available data

☐ Available Data without Audiometry

☒ Available Data with Audiometry

☐ Follow-up Default

General data

	M	F	Total
Operated Ear	1	0	1
Patients	1	0	1
>=65 years	0	0	0
<=18 Years	0	0	0
Younger	22,1	0	22,1
Older	22,1	0	22,1
Mean Age	22,1	0	22,1

Date: Start 28/12/11 End 28/12/11

Age: Mini 22,1 Maxi 22,1 years

Follow-up: Mini 0 Mean 0 Maxi 0 Months

1-Stage

Item	Terms	n=
Stage of Surgery (1)	Primary Surgery	1

ABG

	Pre	Post
<-30 db	0	0
21 to 30 db	0	0
11 to 20 db	0	0
06 to 10 db	1	0
<6	0	1
Mean	8,8	0

IAD

	Pre	Post
<-30 db	0	0
21 to 30 db	0	0
11 to 20 db	0	0
<10 db	1	1
Mean (dB)	-66	0

Evolution BC AC

	BC	AC
<-30 db	0	0
21 to 30 db	0	0

Clinical data: all items you have entered in the records of intervention and in the audio post-op. will be listed in their respective tab (here: 1-Stage)

General Information: Pre and Post operative (here the Preop. Data)



Results

	<input type="checkbox"/> M	<input type="checkbox"/> F	Total
Operated Ear	1	0	1
Patients	1	0	1
>=65 years	0	0	0
<=18 Years	0	0	0
Younger	22,1	0	22,1
Older	22,1		22,1
Mean Age	22,1	0	22,1

Date	Start	End
	28/12/11	28/12/11

Age	Mini	Maxi
	22,1	22,1 years

- ✓ 1-Stage
- 2-Clinical
- 2B-Pre-op Imaging
- 3-Surgery
- 4-Ossiculoplasty
- 5-Perioperative Period
- Post-operative

n= 1	Pre	ABG	Post
<-30 db	0		0
21 to 30 db	0		0
11 to 20 db	0		0
06 to 10 db	1 <input type="checkbox"/>		0
<05 db	0		1 <input type="checkbox"/>
Mean (dB)	8,8		0

Area A: All information of patients by age, gender, date of intervention. You can always make a selective search by:

Gender (Male or Female)

Date of Intervention

Age (12/16 years per instance if seen want to study the results of your interventions in adolescents)

Area B : All values entered in pop-up sheets are tabulated by intervention. Pull down the tab "one-stage" to choose another area and see all the values you previously entered. A double click on one of the statistics section will adjust this value

Area C: The audiometric testing pre-and postoperative values are grouped, you will be very easy for example to study the population of patients with preoperative Rinne between 21 and 30 db by selecting the check box

At any time the selective search is permitted only after you have a text entry field or checkbox.



Results

Available data

- ☐ Available Data without Audiometry
- ☒ Available Data with Audiometry
- ☐ Follow-up Default

Follow-up

Mini	Mean	Maxi	Months
0	0	0	

Failures

0	Post-operative ABG > 10 dB without SNHL
0	Extrusions with ABG < 10 dB without SNHL
0	SNHL
Vertigo (Fistula Sign+ve) with ABG < 10 dB without SNHL	

Export Data

If you select the checkbox "With Audio post-op", you will select all of the interventions that will have a postoperative audiometric testing, so the basis of the most reliable results.

In this case appear in the Area A 2 other tables concerning the selection of postoperative follow-up and accounting for your failures.

At the bottom of these tables is a button: Export data, this feature allows you to export your data in XLS format (Microsoft Excel).

The "Track" allows you to select the distance that you want to analyze for example, from 0 to + Little + 7 Months at Large for analyzing audiometric data sheets included in this period.

Also you can analyze "cases not reviewed", ie patients who you could not make audiometric testing postoperatively. These data will, however abstracts.



Results

n= 1	Evolution	
	BC	AC
<-30 db	0	0
21 to 30 db	0	0
11 to 20 db	0	0
-09 to 10 db	0	0
-10 to -19 db	0	0
-20 to -29 db	0	0
<-30 db	1 <input type="checkbox"/>	1 <input type="checkbox"/>
Pre-op mean (dB)	25	33,8
Post-op mean (dB)	100	100
Post-op n > 40 dB	1	1

n= 1	Pre	Post
Speech D. 50% (d	0	0
Speech D. 100% (0	0

In case you checked the box "With Audio Post-op," you'll just appear in the C Area another column that shows the changes pre-and postoperative CO and CA, these values are very important to judge the quality of your interventions. You can look at each individual value that has a checkbox next to him.

The last column presents the average voice analysis at 50 and 100%.

☒ 0.5 ☒ 1 kHz ☒ 2 kHz ☐ 3 kHz ☒ 4 kHz ☐ 8 kHz

The top right of your screen, us can individually examine each frequency by selecting the corresponding check box and clicking

New Choice of Frequencies

At any time you can also apply the results in digital format and then a percentage:

☒ Numerical ☐ %

The list of patients affected by the results you can be reached by clicking:

List of selected cases

The button will deliver to the original position of all parameters.

Initia...



Authors, International Scientific Committee

Author - Conceptor :		Denis Alcaraz	(FR)
Design Assistant :		Xuxian	(CN)
Scientific supervisor :		Robert Vincent	(FR)
International Scientific Committee :		Chris Aldren, Leon Lindsay, David Luff, John Oates, Chris Raine, Jonathan Osborne	(UK)
		Benoit Gratacap, Thibaut Dumon, Jacques Magnan	(FR)
		Robert Jackler, Neil Sperling	(USA)
		Ashesh Bhumkar, Anand Shah	(India)
		Sady Da Costa	(Brazil)
		Peter Friedland, Duane Mol	(South Africa)
		Nuri Ozgirgin	(Turkey)
		Jacob Sade	(Israël)



ONDB - Author conceptor



Denis ALCARAZ

Medical Project Manager

Jean Causse Ear Clinic , Traverse de Béziers , Béziers, France

INPG Engineer - Project Manager

Graduate of the National Institute of Polytechnic of Grenoble (38 - France)

References:

- Creator of the first Anatomical Interactive Atlas : Atlas SANDOZ
- Creator of OTOROM 2, self-formation of ENT surgeons
- Creator of ADV (Dynamic Anatomy Life) self-training medical professionals and para-medical.
- Creator manager of ONDB (Neuro-Otology Otology Database) database of prospective analysis of outcomes in Otology surgery.
- Creator manager of MSDB (Medical Surgical Database) Complete management of a hospital. Making appointments, consultations, surgery, hospitalization Anesthesia, Otology, Orthopaedics, Ophthalmology, ENT, Oncology, Emergency, edit all health mail ...

Official Developer of 4D Team France



ONDB - Scientific Supervisor



Robert VINCENT MD

http://www.clinique-causse.com/pages_FR/otologie/medecins/vincent.html

Otology/Vestibular/Audiology

Jean Causse Ear Clinic , Traverse de Béziers , Béziers, France

CURRENT POSITION:

Surgeon, Clinique du Docteur Jean Causse

MEMBERSHIPS:

- European Academy of Otology and Neurotology (EAONO)
- American Academy of Otorhinolaryngology Head and Neck Surgery (AAO-HNS)
- Otosclerosis Study Group
- Ménière's Society
- Indian Society of Otology and Neurotology (ISOCON)
- Live International Otology Network (LION)
- Société Française d'ORL et de Chirurgie Cervico-Faciale

AWARDS:

- Former intern Hospitals
- Honorary Fellow of the Royal College of Surgeon of Edinburgh



Wich was created ONDB



http://www.clinique-causse.com/index_UK.html

The clinic in Beziers Causse Clinic in France is renowned worldwide in the field of Otology, she practiced for many years of surgical procedures which makes it a world leader in research of the ear.

ONDB was created from a study by Dr. Robert Vincent of 4,000 surgical patients with 10 years of practice.

Writing ONDB required two years of collaboration between its creator **Denis Alcaraz** and the Scientific Supervisor, **Robert Vincent MD**.

ONDB is written to SQL language

ONDB allows multi-exchange systems

ONDB is evolving and allows each surgeon to adapt its own technology studies

ONDB is running to: Sao Paulo (Brazil), New York (United States), Marseille, Lyon, Marseille, Béziers (France), Hannover (Germany), Utrecht (Netherlands), England, South Africa, Spain, Italy ...