

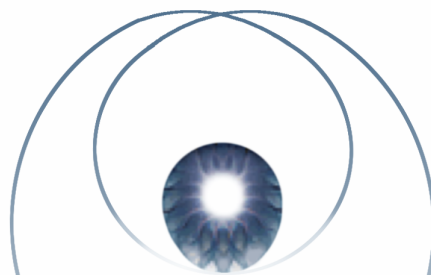


**HEALTH** *one*<sup>™</sup>

*clinical management, for life*

## **Electronic Patient Record-Keeping Software**

Supplied by:



**BETTERHEALTH  
GLOBAL LIMITED  
(SOUTH AFRICA)**

# HEALTHone - The Healthcare Record

.....HEALTHone is not the processed equivalent of a paper based healthcare record **filing** system.

HEALTHone is an electronic healthcare record, clinical **management and administration** tool.

.....HEALTHone eliminates paper files related drawbacks: overstuffed records, bulky cabinets, hours wasted looking for documents,

HEALTHone is an electronic system that aims at assisting you with both your administrative tasks of collecting and storing patient information and the medical follow up of your patients thanks to its powerful analysis functions.  
Such tasks and medical follow-ups have become too time consuming or costly to be performed manually.

## HEALTHone's immediate functionality includes.

- Drug prescription;
- Automatic integration of laboratory and radiology protocols;
- Billing
- Integration of texts and medical imaging;
- Appointment Planning
- Quick search and retrieval of healthcare records;
- Analysis of one healthcare record or a set of records;
- Writing and printing of documents, reports and certificates;
- Displaying numeric data in a chart and/or graph,
- Exporting and importing healthcare records.
- And features a tight integration with the internet, allowing access to preferred doctors web sites or 'portals' rapidly.

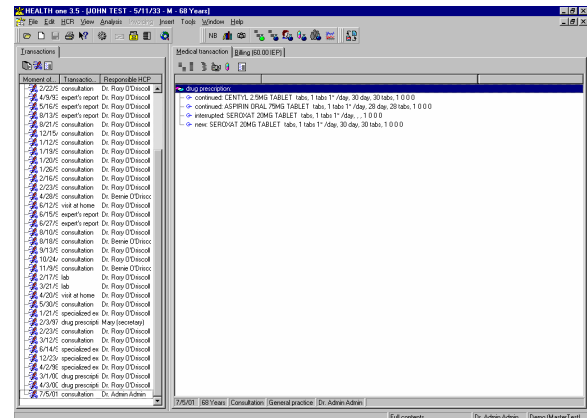
## HEALTHone Assets

- The richness of its functionality;
- Its user friendliness;
- Its configuration possibilities without writing a single line of code;
- A set of customization tools to help those who are not familiar with computers, or speed up the process for the experts.
- An immediate access to all of the above.

## HEALTHone Information Structure

HEALTHone essentially consists of three basic levels of information:

- **The healthcare record:** Every patient has a record to which medical data are written.
- **The transaction:** A healthcare record consists of a series of transactions, i.e. interactions between a patient and one or several doctors, specialists, other healthcare professionals, or technical examinations.
- **The item:** A transaction contains a set of items, which detail the encounter.



## The Healthcare Records, (‘the critical elements’...)

### Creating New Records Quickly

HEALTHone makes creating a new patient record simple and fast. All you need to do is enter contents for the administrative items selected, during a preliminary configuration step, to uniquely identify your patients. For the system, for you and for your patients, it is imperative that HEALTHone be able to unambiguously identify each one of your healthcare records. You may select information combinations that uniquely identify each patient. This can include (but is not limited to) social security number, national number, or a combination of criteria such as first name, last name, sex, and date of birth, as required by local regulations. Once this is set by you, HEALTHone will automatically prompt for these criteria when creating a record.

### Viewing your Information

A healthcare record viewer displays all your interventions in a patient’s record, whatever these interventions may be: home care, consultation, protocol integration, external healthcare professional’s opinion... These interventions constitute HEALTHone’s transactions. They appear in outline form by chapter (administrative and medical) and in chronological order. As soon as you start manipulating an important number of transactions for a patient, you can ask the system, on the basis of criteria such as *author*, *medical speciality*, *institution* or *department*, to display only part of them (a specific subset). This function offers an excellent and powerful way to quickly have an overall view and to access data even in huge patient files.

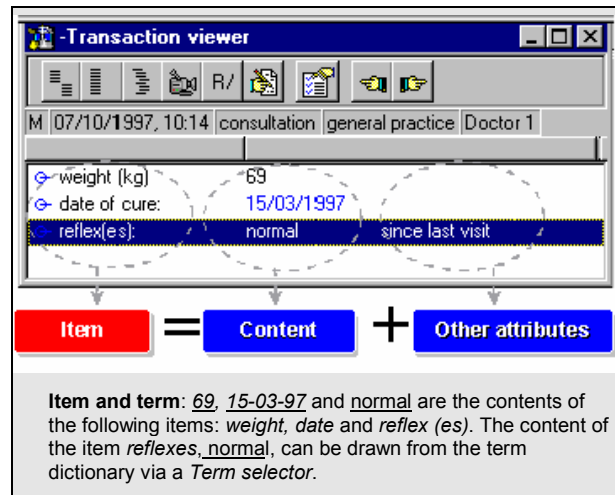
### Managing the Information that Matters Most

Besides HEALTHone’s administrative functions such as simplified letter writing, printing of prescriptions and archiving of records, it is designed first and foremost to enable and ensure optimal medical follow-up of your patients: focus is on clinical management, as opposed to administrative management only. In order to reach this goal HEALTHone assists you in achieving a rigorous writing of both your observations and conclusions on the one hand, and guarantees the integration of external data such as laboratory protocols on the other hand. In short, HEALTHone helps you control medical information critical to your practice. Thanks to its analysis functions you can have a clear, accurate and comprehensive view on a record, whenever needed.

## The Item, Capturing Data

### Item and term

A distinction to be kept clearly in mind is that between an item and a term: an item refers to any medical phrase that can be found in the HEALTHone item dictionary and likely to receive contents. These may either be free text, a multimedia object, or a phrase - term - from the HEALTHone term dictionary.



**Item and term:** 69, 15-03-97 and normal are the contents of the following items: *weight*, *date* and *reflex (es)*. The content of the item *reflex(es)*, normal, can be drawn from the term dictionary via a *Term selector*.

### Collecting the Information you require

The item is the basic information unit, i.e. the unit of information resulting from an observation, a question or some other investigation procedure.

Every item should receive content.

Thus 69 would be a possible content for the item *weight* and 240 a possible content for the item *cholesterol*. In order to meet all GPs’ basic needs, HEALTHone offers more than 3,600 items and more than 10,000 terms that can be used to represent their content.

Access to both dictionaries, the item dictionary and the term dictionary, is possible by means of selectors: the *item selector* and the *term selector*.

### Collecting Information via Sequences

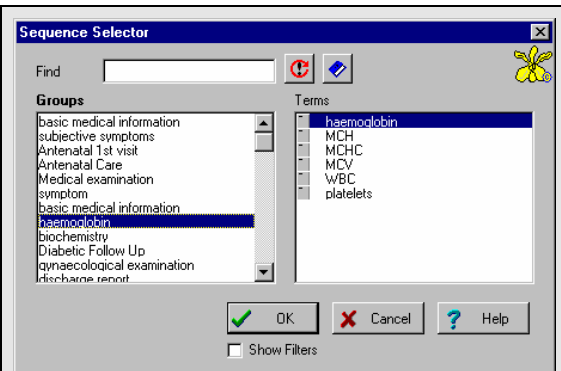
The same series of items is frequently needed for clinical documentation.

This is the case, for example, each time a patient comes to your surgery to have a check-up. You would then have to enter the items *weight, height, blood pressure, ...* for each patient and for each check-up visit.

This would also apply when creating a new healthcare record: HEALTHone makes it compulsory to - and prompts you to - identify your patient with four administrative items, namely *first name, name, age* and *sex*. A boring and tedious task!

So, in order to avoid calling each one of them one by one, such items can be grouped into customizable sequences.

This way, you only have to set up lists of commonly required items once, and have them available for subsequent patient visits.



**Sequences:** Sequences present the items as a simple data set. They may contain up to 100 different items. HEALTHone allows up to 15 different *administrative* sequences and up to 60 different *medical* sequences to be created.

### Reaching the terms

*Permanent lists and associated lists* are features of HEALTHone to help the ease and speed of data entry and to increase consistency of the documentation within healthcare teams.

Permanent lists are lists of contents that are always available for any item whereas associated lists are lists of terms that can be linked with items of your choice.

Moreover HEALTHone supports the creation of links between specific items and *databases* (e.g. international diseases, diagnosis, or procedure classifications).

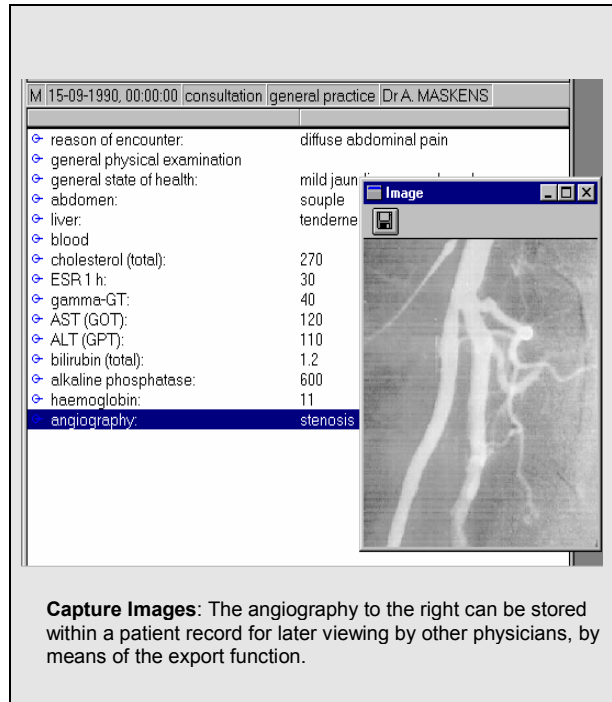
### Incorporating Multimedia Objects

Besides what we qualify as common data types such as coded data, string data, numerical data or dates, HEALTHone allows you to integrate, as part of the item, a variety of multimedia information types

including text, video, digitised or scanned images (picture of a skin lesion, ECG or EEG recording, angiography, radiography...), electronic drawings and sound recordings (dictation).

**This data may come from a database (CD-ROM, Internet), your own input devices (scanner, camera) or simply from an application enabling you to sketch lesions.**

**Any object, once integrated, is an integral part of the healthcare record, and may be displayed at any time.**



**Capture Images:** The angiography to the right can be stored within a patient record for later viewing by other physicians, by means of the export function.

### Capturing Clinical Detail

You can further qualify an item resorting to a number of attributes. You may link each item to an *entry style* comprising some attributes and excluding others. Thus the *entry style* for the item *weight* will comprise, for instance, the following attributes: *content* (e.g., 69) and *unit* (e.g., kg), that for *cholesterol* will have, for instance, the attributes *content* (e.g., 240), *unit* (e.g., mg/dl) and *comment* (e.g., within acceptable bounds). Each attribute is associated with an *input mask* that specifies a data type as well as a display format so that, for instance, in the area meant to receive the content "69" of the item *weight*, the system imposes you to enter a numerical value. This increases the detail and precision of data recording and reduces the risk of errors.

## Drug Prescription

### Recording the Finest Detail of Prescription History

Prescribing drugs is probably one of the most complex healthcare functions.

A prescription may receive up to 18 attributes including the name of the drug, its composition or its dosage. HEALTHone therefore offers a prescription module specifically designed for combining speed and ease of use with the ability to record the finest details of the prescription history.

This is a fundamental pre-requisite for future developments integrating HEALTHone with decision support and expert systems.

The HEALTHone Prescription Module offers the following components and facilities:

- Extensive user-defined drug database;
- External database (optional);
- Fast search function in the data bases, using, for example, the following criteria: therapeutic class, generic names, ingredients, administration mode or laboratory);
- Automatic display of drug details (ingredients, dosage, contra-indications) for selected drugs;
- Automatic issuing of prescription forms;
- Patient drug history;
- List of active drugs.

### Combining Predefined Drug Formularies with Your own Unique Drug Information

Additionally, HEALTHone offers a highly structured set of drug files that can be populated with data from various sources, such as user-defined data, or else national or institutional drug formulary (e.g. at hospital level).

As an option, HEALTHone offers a complete integration of high quality international drug databases.

Even when using data from an external source, users can add their specific details (e.g. various usual dosages, schedules or comments) in the drug files. This contributes greatly to making complex prescriptions a fast and easy process.

## Analyses

### Understanding Patient Health Evolution through Thorough Analysis

The real power of HEALTHone lies in its ability to provide you with quick and accurate analysis of clinical data.

Carrying out an analysis consists in resorting to data extraction formulae - using the items as well as their attributes as filters - in order to get a broader picture of the patient's health progression. HEALTHone puts at your disposal a set of ready to use analyses on the one hand, and the necessary tools for you to create the analyses that best meet your needs on the other hand. The general format for all analyses can be saved for later use.

By way of illustration the scanning of every occurrence of the following items *glucose fasting*, *glucose [post-prandial]*, *HbA1c*, *creatinine*, *urine examination*, *fundi [optic]*, *electromyography*, *insulin*, *C-peptide*, *blood sugar*, *weight*, together with their content, will guarantee an optimal diabetic patient follow-up.

This means that once you create a particular set of criteria for analysing a set of patients, you can use it a week, a month, or a year later with a simple click of a button.

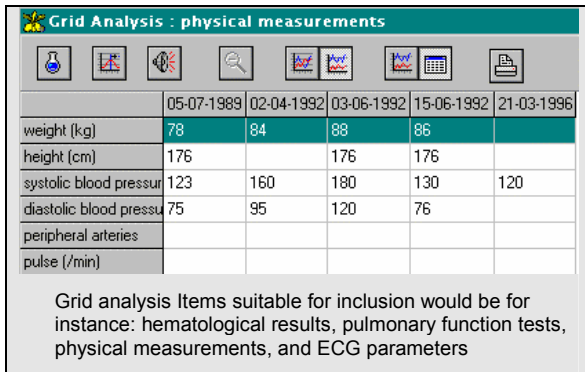
The result of an analysis will always be a set of items to which you can add information specific to the transactions they originate from (author, responsible professional, date of creation).

### Integrating External Electronic Information

External electronic information such as laboratory reports can be integrated into a patient's record. This allows you to collect and store valuable patient information originating from numerous outside sources, and all in a single location.

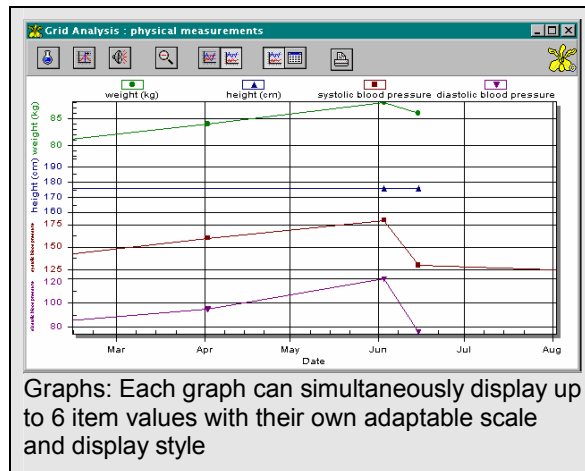
### Displaying Numerical Data in Grids

An advanced form of analysis is the grid analysis. It allows you to present the chronological evolution of a set of values. You can resort to the standard ready to use analyses, create your own or make use of existing sequences. HEALTHone enables you to create up to 64 different grid analyses of relevance to your speciality or work practice.



### Graph Analysis to Better Explain Healthcare Patterns to Patients

Your numerical data will ideally lend themselves to a graphical display. Table data can be further displayed as graphs, using a variety of presentation styles: dots, lines, bars.



### Population Analysis

These are powerful functions dedicated to handling the data of groups of patients. For example, making a list of all the patients receiving a particular medication, writing to all the patients who should get their influenza vaccine the following month, calculating the number of times a particular procedure was carried out the preceding month, or sending an insurance company a bill for outstanding fees.

### Dictionaries: Optimising Analyses Possibilities

HEALTHone offers as a standard feature two types of dictionaries, an item dictionary and a term dictionary.

The dictionary of items lists the names of all the available information items (i.e., *weight, sex, cholesterol, etc.*) In all, more than 3,600 items are listed in the dictionary. This allows you to use any of these entry names in your patient record, maintaining continuity in the terminology of each record.

The dictionary of terms lists over 10,000 medical terms and expressions you can use to give an item content.

In addition to these two main dictionaries, a separate user dictionary can be created and edited by you to meet the unique needs of your practice.

### Word Processing: Automate Recurring, Everyday Tasks

HEALTHone can create, store, and execute document templates, completing them with patient data. Text produced can be submitted to final editing using popular word processors such as Microsoft Word® and can be archived in the patient record.

### For All... in All Languages

Items and contents used from the dictionaries are automatically translated into other languages at a press of a key: HEALTHone automatically translates key information at the touch of a button when viewed by physicians with differing language preferences. This includes English, Spanish, German, French, and Dutch, and soon Italian, Greek, and Danish.

### Configuration

HEALTHone is designed for all healthcare environments and all languages. This means that it can be used equally by general practitioners, specialists, nurses, and other healthcare providers.

HEALTHone is applicable in all sizes and types of healthcare environments.

HEALTHone meets the needs of a single physician working out of a single office, or the needs of hundreds of healthcare professionals working together in a large hospital setting.

### **Confidentiality and Data Security**

HEALTHone supports a variety of security measures that require unique identification codes to be input before information can be accessed or entered.

Different levels of security can be provided to different healthcare professionals (doctors, nursing ward or secretaries) within your practice setting, depending on the information they are allowed to view.

### **Validation: the Responsible Professional**

HEALTHone requires each transaction to be validated by the responsible professional, the author of the information or someone he/she delegates the responsibility to (sets of privileges can be implemented). Different people can have varying levels of validation authorisation.

Once a transaction is validated, HEALTHone will not allow its content to be deleted or overwritten under any condition. It does allow, however, authorised users (e.g. the author) to produce amendments to existing information; these will be stored as new, amended versions of the original transaction, while retaining the previous version(s).

Every single version shall be kept and signed: in addition to the author of the modification the system also documents the institution, department, date, etc. so that audits can be conducted as necessary to track who contributed to which files, and when.

### **Work remotely and with other healthcare providers**

Healthcare records created in HEALTHone are easily transferred to any other HEALTHone installation. This means you can visit patients down the hall, across the street, or across town in their own homes. Information collected on a portable computer can then be easily transferred to a main computer at a later time. All patient information collected remotely will automatically update into the patient's main file with a click of a button.

This flexibility allows you to meet patients at their level, and it helps you work with other physicians.

### **Storage Capacity: a System that Grows with You**

HEALTHone imposes no limit on the amount of information maintained in the system. This enables lifelong longitudinal healthcare records. Because the actual limit of storage space is based on the computer hardware used, you can increase or decrease capacity as your needs require.

### **International Standards**

HEALTHone is designed so that whatever the level of individualisation by one user, it will always remain compatible with that of other HEALTHone users. This is because the software is designed around international standards that promote four main areas: flexibility, portability, clinical detail, and security.

Moreover, HEALTHone Global are actively involved in projects that seek to promote such standards.

The architecture of HEALTHone is based on the first European Standard on Electronic Healthcare Record Architecture (CEN TC251 ENV 12265, 1995). The architecture further incorporates concepts proposed by the "Good European Health Record" (GEHR).

### **Trademark**

HEALTHone is registered as a trademark in Europe, and internationally.



**HEALTHone is available for healthcare professionals or institutions in three main options.**

**HEALTHone for Individual Practice**

HEALTH one for Individual Practice can be installed on a stand-alone personal computer (PC) or on a local PC network. It offers all HEALTH one functions and can directly access a large number of healthcare records since the capacity of the hard disk is the sole limitation. Installed on a desktop computer, it can support practice environments. Installed on a portable PC, it can support home visits.

**HEALTHone for Clinical Department**

HEALTH one for Clinical Department supports teamwork such as in group practices and hospital departments. It must be installed on PC networks and can directly access a large number of healthcare records limited only by the capacity of the network server. It offers all HEALTH one functions, and allows the customization of several working environments (configurations) matching

the various functions of the team, e.g. secretarial, nursing ward, outpatient and in-patient facilities.

**HEALTHone for Organisation**

HEALTH one for Organisation supports the use of HEALTH one in situations where more than one clinical department is federated within one single organisation. This can for instance be corporate users in mining or manufacturing environments, hospitals or healthcare networks. Supports a range of medical services: Primary Healthcare, Occupational Health (Medical surveillance), Trauma, Inpatient records and for HIV: both VCT (Voluntary Counselling and Testing) and ART (Anti-Retroviral Treatment). Common patient records can be accessed from different sites through a client/server. This offers all HEALTH one functions on the workstations, and allows the customisation of several working environments (configurations) matching the various functions of the team, e.g. secretarial, nursing ward, outpatient and in-patient facilities. The server can be adapted to particular circumstances regarding terms of access and capacity.

---

**Better Health Global (SA) offers the following services:**

- Full customisation to meet clients needs
- Anti-Retroviral Treatment Module
- Occupational Health Module
- Dental Module
- Integration with other systems

**Contact Details:**

- Dr K Schlagbauer – Medical Director 083 786 3551
- Mr D Naran – Managing Director 083 411 2342