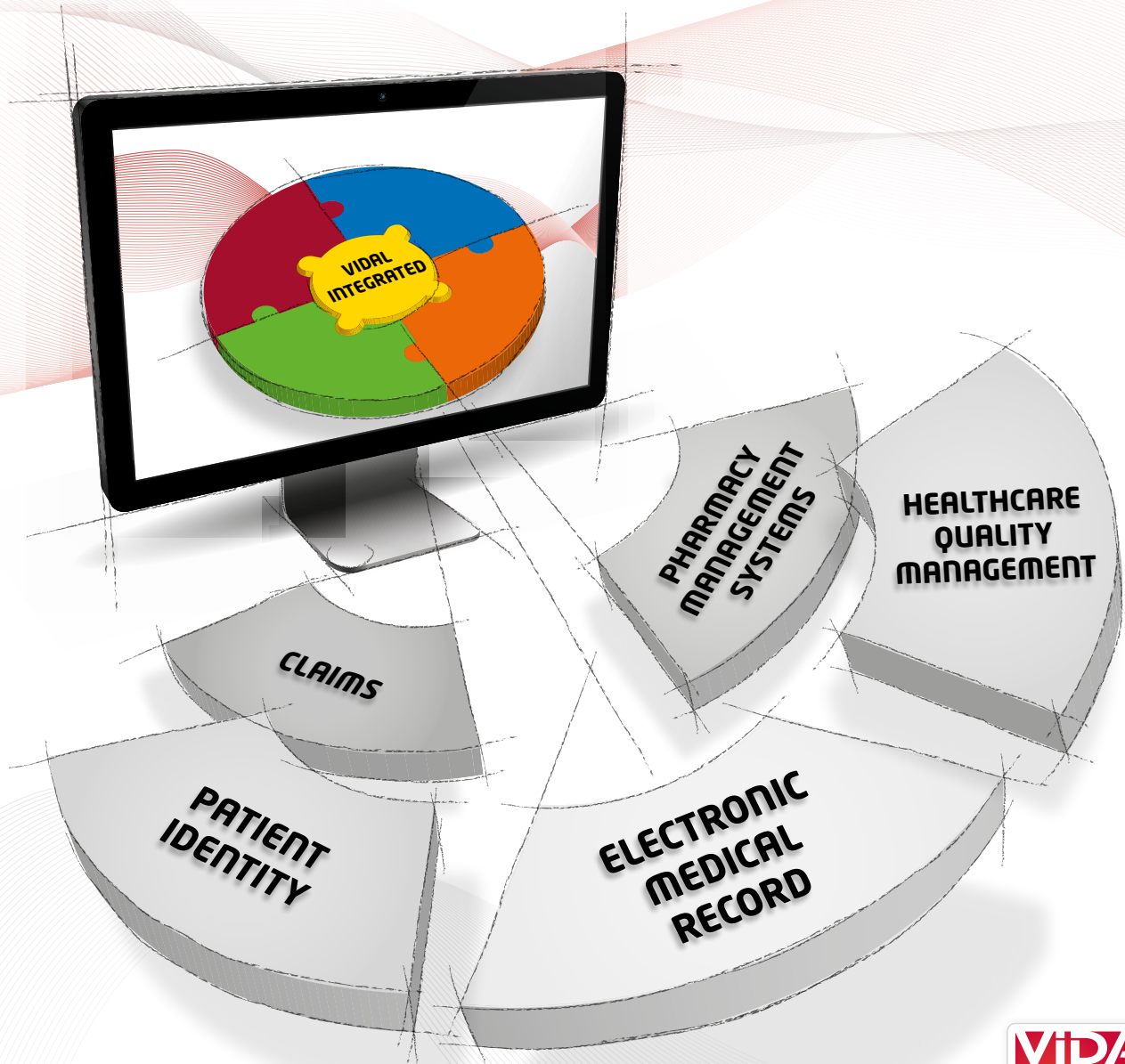


# **ViDAL<sup>®</sup>**

*Drug Information Systems*

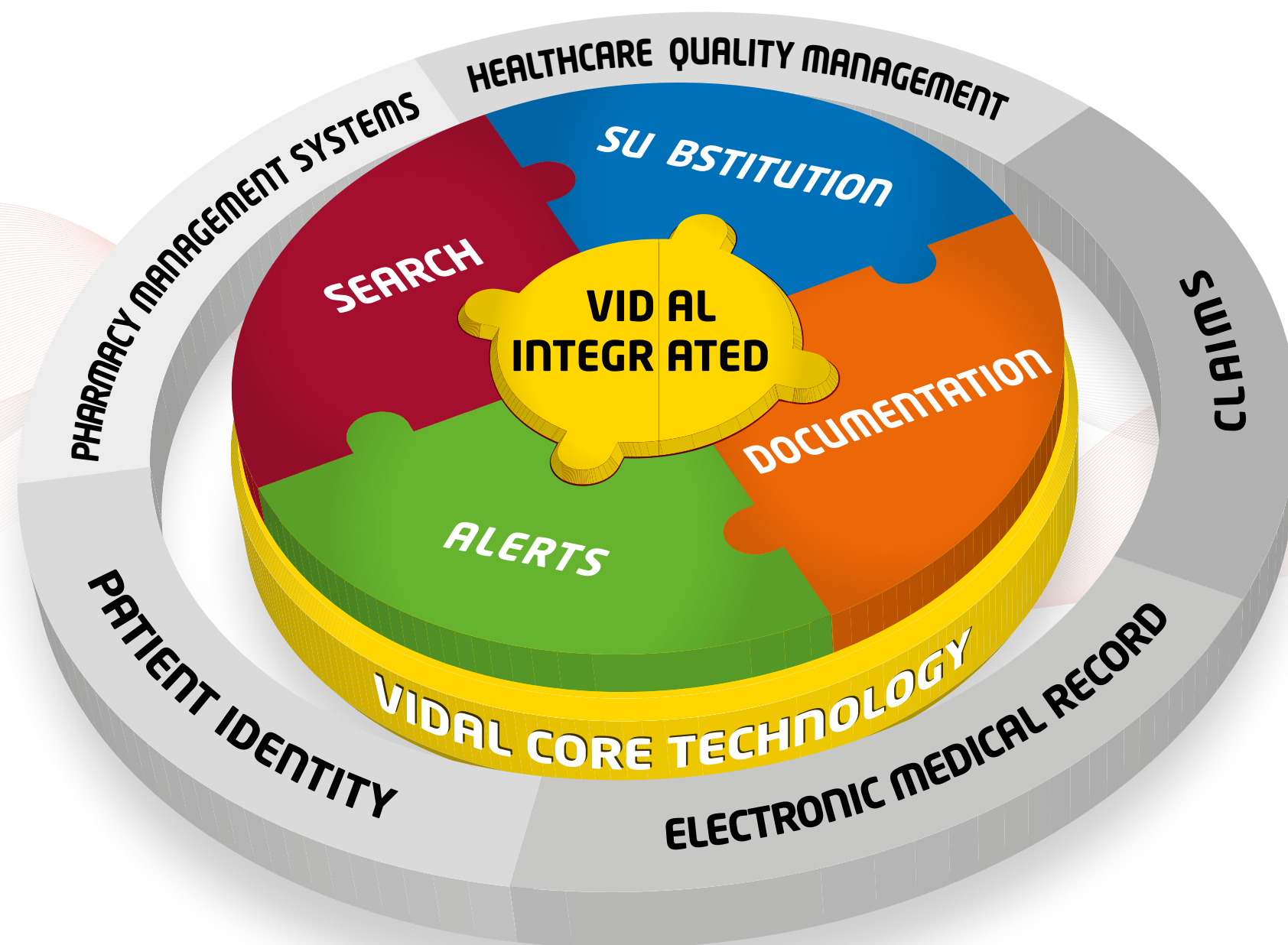
## **INTEGRATED**



# VIDAL INTEGRATED

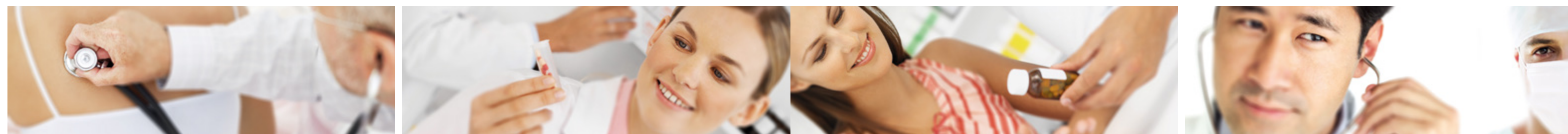
**VIDAL INTEGRATED** is the solution that provides access to the entirety of the **VIDAL CORE** modules for all Healthcare Information Systems and ePrescription applications. The extent of available functionalities is based on an innovative API (Application Programming Interface) architecture that covers 4 main domains: Drug search and identification, Alerts, Substitution and Documentation.

By means of comprehensive integration expertise, VIDAL supplies its partners with an overarching access to its reference information and Decision Support Modules, and helps improve the overall prescription safety and optimize medication management cycles.



## VIDAL INTEGRATED key functionalities

- 1** Access to locally available drugs
- 2** Wide array of Drug-Drug and Drug-Patient alerts (based on VIDAL Core's Decision Support Modules)
- 3** Reference Documentation (Drug Monographs and structured Drug information)
- 4** Innovative API technology allowing straightforward integration and deployment
- 5** Single interface for several drug databases
- 6** Interoperability with standard terminologies in healthcare (ATC, ICD...)

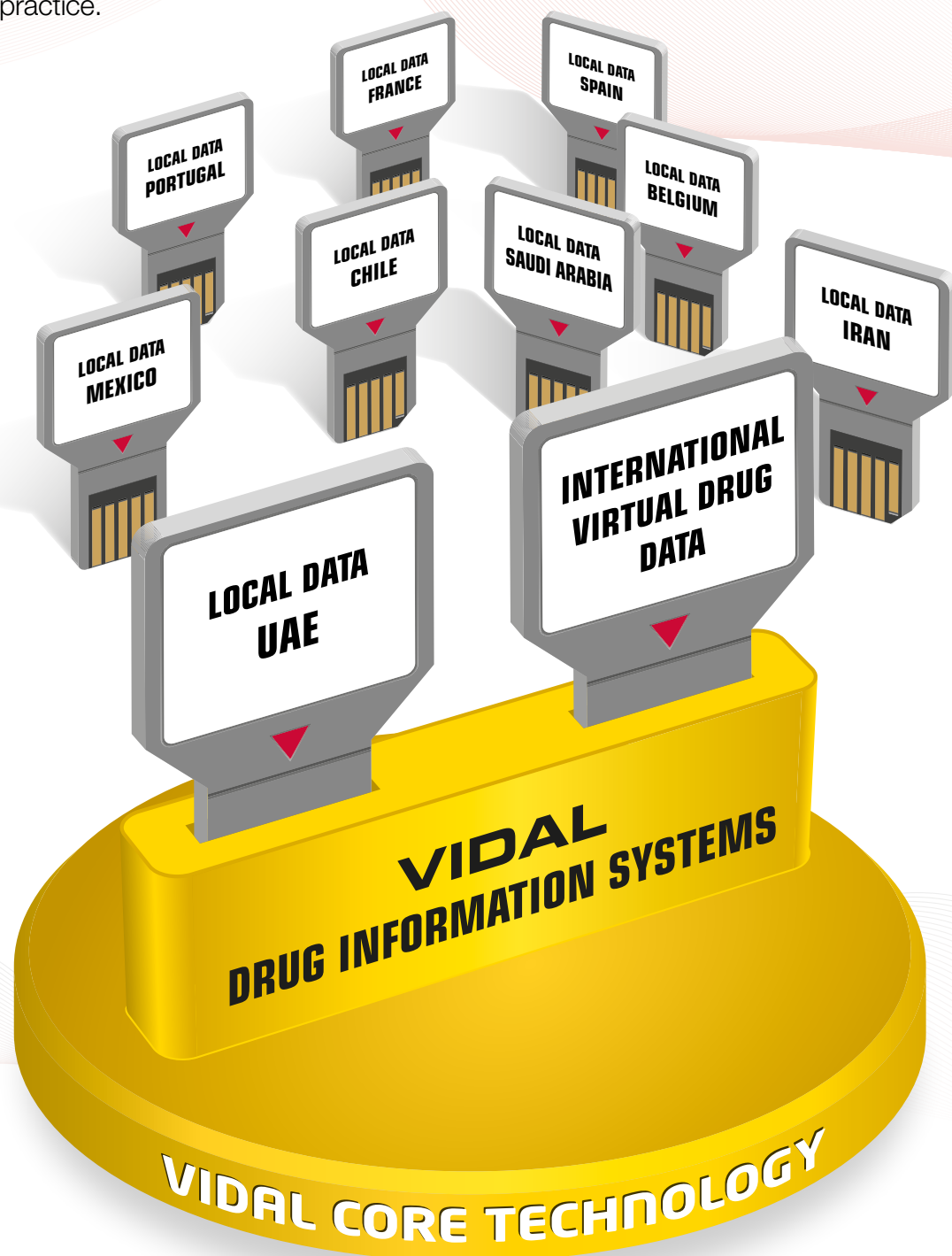




# VIDAL CORE TECHNOLOGY

VIDAL Drug Information Systems are underpinned by an international repository of Virtual Medicinal Products (VMP) linked to a broad semantic network detailing the usage, clinical effects, and potential risks for each drug. The information is highly structured and regularly updated by our team of pharmacists.

In each concerned country, VIDAL closely monitors the formularies issued by relative official health authorities and adapts its information to the local needs in order to provide healthcare professionals with a reliable source of information on the drugs that are accessible in their everyday practice.



# Search functions

API access to the whole graph of drug information facilitates the implementation of a large variety of search functionalities. Criteria that may be used to lookup branded or generic drugs include:

- Product name
- Ingredient
- Local code
- ATC Classification
- Therapeutic indication

# Substitution functions

Similarly, proposing drug alternatives to the healthcare professional may be based on a variety of strategies, such as:

- Similar product (same ingredient, dosage, form and route of administration)
- ATC classification
- Therapeutic indication





# Alerts functions

## Drug Allergy Module

Checks the risk of allergic reactions between drugs and patient-known allergens. Cross-sensitivity reactions are included in this detection.

## Drug interactions Module

The VIDAL drugs database provides data on clinically relevant drug to-drug interaction involving pharmacological or pharmacokinetic mechanisms.

An interaction is described by:

- A risk level based on the following severity scale:
  - Contraindication
  - Not recommended
  - Caution
  - To be taken into account
- A description of the interaction mechanism.
- Patient monitoring information, if available, with appropriate actions to be taken in response to the alert.

## Drug Health Module

Including *Drug Pathologies Module*, *Drug Age Module*, *Drug Weight Module*, *Drug Sex Module*, *Drug Pregnancy Module*, *Drug Lactation Module*, *Drug Renal Failure Module*, etc.

The aim of the drug health module is to help physicians to confidently determine what will be a safe and appropriate medication for a patient in relation to his specific medical condition.

## Drug Duplicate Therapy Module

The presence of the same active substance – or a parent one – in two drugs belonging to the same prescription can be detected in order to prevent any over dosage and adverse toxicity events.

## Drug Warning Module

Provides warning on specific patient monitoring or prevents special risks linked to drug prescription. These would entail taking into account and monitoring biological parameters throughout the treatment in order to reduce morbidity and harm to patients.

# Documentation functions and structured data

**VIDAL INTEGRATED** provides third-party applications with rapid access to reference clinical information on drugs, curated by a team of healthcare experts (pharmacists, physicians, pharmacologists) and based on national and international reference sources.

## Product Information (Structured Data)

- Brand name
- Generic name (Virtual Drug name)
- National code
- ATC classification (WHO)
- Active ingredient(s)
- Indications
- Route(s) of administration
- Pharmaceutical form
- Contraindications
- Allergies
- Precautions
- Adverse effects
- Drug interactions
- Packaging information
- Warnings (drug-food interactions, specific risks...)
- Cautions for usage
- Performance-enhancing information

Hyzaar 100 mg/25 mg

Generic: hydrochlorothiazide 25 mg + losartan potassium 100 mg ; oral use ; tablet

**Overview**

**Drug details**

Active ingredients	Strength	Form	Route
hydrochlorothiazide	25 mg	tablet	oral use
losartan potassium	100 mg	tablet	oral use

**ATC Class**

Code	Name
C03DA01	LOSARTAN AND DIURETICS

**Drug equivalents (same form, route and active ingredients)**

- FORTZAAR film-coated tablet 100 mg + 25 mg
- LOSAL PLUS DS film-coated tablet 25 mg + 100 mg
- ZARGO HT film-coated tablet 25 mg + 100 mg

See foreign brands matching the ATC Class >>

The therapeutic information mentioned on this page refers to the properties of the Generics, and should not be considered as extensive information related to the branded product

**Reproductive health (risk)**

Pregnancy (months)	Lact.
1 2 3 4 5 6 7 8 9	

**Vigilance**

**Use in Sport**

**Reference documentation**

Printable monograph for: hydrochlorothiazide 25 mg + losartan potassium 100 mg ; oral use ; tablet

**PATENT SAFETY**

Risk scale: Critical High Moderate Low

**Drug interactions**

Severity: **Contraindication** Critical

**Angiotensin II receptor antagonists + Aldiskiren**

Risks and Mechanisms	Risk of hyperkalemia, of renal failure, of increased cardiovascular morbidity-mortality.
Course of Action	Contraindication in diabetic patient or in the event of renal failure. Not recommended in the other cases.

Severity: **Combination not recommended** High

**Angiotensin II receptor antagonists + Lithium**

Risks and Mechanisms	Increased lithium may reach toxic values (reduced renal excretion of lithium).
Course of Action	If the use of an angiotensin II antagonist is essential, strictly monitor lithium and dose adjustment.

**Angiotensin II receptor antagonists + Potassium**

Risks and Mechanisms	hyperkalemia (potentially lethal) particularly during renal failure (addition of hyperkalemic effects).
Course of Action	Avoid this association except if there is prior hypokalemia.

**Angiotensin II receptor antagonists + Potassium-sparing diuretics (alone or in association) except spironolactone and eplerenone**

Risks and Mechanisms	Except for eplerenone and for spironolactone at doses between 12.5 mg and 50 mg/day in the treatment of heart failure and also in the event of hypokalemia: risk of hyperkalemia (potentially lethal) particularly during renal failure (addition of hyperkalemic effects).
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## Generic monograph

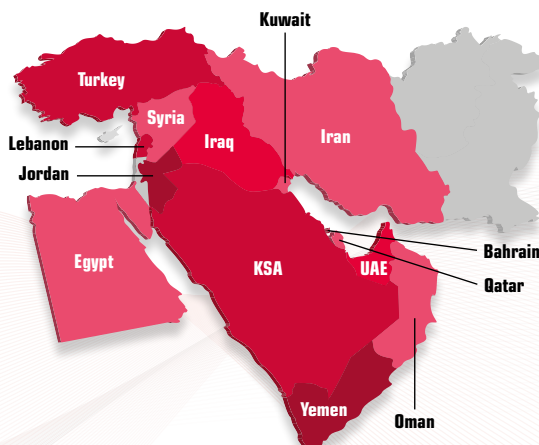
Including:

- Generic Name
- Drug classification
- Administration
- Dosage and indications
- Drug interactions
- Reproductive health warnings
- Method of action
- Adverse effects
- Food interactions
- Drug Monitoring
- Contraindications & Precautions
- Special safety measures
- ...

# Content

VIDAL databases and Decision Support Modules are elaborated from validated local formularies and internationally recognized official sources (EMA, FDA, ANSM,...) by a multinational team of health experts in 8 European countries (pharmacists, pharmacologists, physicians, scientists, database architects, medical informatics specialists).

For the Middle East, the contents of the VIDAL database complies with the main official drug formularies in the region (HAAD, SFDA, DHA...) in order to provide healthcare professionals with a reliable solution adapted to the products to which they have access in their everyday practice.



VIDAL is present in many European countries and in 95% of hospitals in France. As the European leader in the field of drug information, VIDAL is also involved in many international health projects such as EPSOS (European Patients - Smart Open Services) and PSIP (Patient Safety through Intelligent Procedures in medication).



## Technical details

Technology: Local SOAP WebServices (REST upcoming).  
Platforms: Windows (XP and above), Linux.

## Integration Support

Our support team provides technical assistance and functional advice to our partners all along the integration process.



VIDAL Group, part of AXIO Data Group, is a leading European healthcare informatics and information systems company. With a team of nearly 350 pharmacists, pharmacologists, physicians, researchers, health informaticists, database architects, and application developers, VIDAL Group provides hospitals, primary care physicians, pharmacists, and patients throughout Europe with on-line access to up-to-date drug databases and related treatment-based information. VIDAL Group solutions are designed for both "solo" consumption and turnkey "ensemble" integration into existing healthcare information-processing system architectures. To this end, the company's products are currently embedded in over 400 medical software application software in Europe.

# Contacts

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