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21. Guerbet - Une aventure de plus d'un siècle au service de la Santé

DOTAREM 0.5 mmol/mL, solution for injection. **Composition:** For 100 mL of solution: active ingredient: Gadoteric Acid 27.932 g corresponding to: DOTA 20.246 g corresponding to gadolinium oxide 9.062 g. **Indications (\*):** Medicinal product for diagnostic use only: Magnetic Resonance Imaging for cerebral and spinal disease, diseases of the vertebral column, and other whole-body pathologies (including angiography). Dotarem should be used only when diagnostic information is essential and not available with unenhanced magnetic resonance imaging (MRI). **Posology and method of administration:** The recommended dose is 0.1 mmol/kg, i.e. 0.2 mL/kg in adults and children. The lowest dose that provides sufficient enhancement for diagnostic purposes should be used. The dose should be calculated based on the patient's body weight, and should not exceed the recommended dose per kilogram of body weight detailed in this section. **In angiography,** depending on the results of the examination being performed, a second injection may be administered during the same session if necessary. Angiography with Gadoteric acid is not recommended in children (0-18 years). **In Encephalic and spinal MRI,** in some exceptional cases, as in the confirmation of isolated metastasis or the detection of leptomeningeal tumours, a second injection of 0.2 mmol/kg may improve tumor characterisation and facilitate therapeutic decision making. For patients with impaired renal function and paediatric population (0-18 years) more than one dose should not be used during a scan, injections should not be repeated unless the interval between injections is at least 7 days. The product must be administered by strict intravenous injection. Depending on the amount of gadoteric acid to be given to the child, it is preferable to use gadoteric acid vials with a single use syringe of a volume adapted to this amount in order to have a better precision of the injected volume. In neonates and infants the required dose should be administered by hand. **Contraindications:** Hypersensitivity to gadoteric acid, to meglumine or to any medicinal products containing gadolinium. **Special warnings and precautions for use:** Dotarem must not be administered by subarachnoid (or epidural) injection. The usual precaution measures for MRI examination should be taken such as exclusion of patients with pacemakers, ferromagnetic vascular clips, infusion pumps, nerve stimulators, cochlear implants or suspected intracorporal metallic foreign bodies,

particularly in the eye. **General particulars corresponding to all gadolinium contrast agents:** All gadolinium based contrast media can cause minor or major hypersensitivity reactions that can be life-threatening. These can occur immediately (within 60 minutes) or be delayed (within 7 days) and are often unpredictable. Because of the risk of major reactions, emergency resuscitation equipment should be available for immediate use. Hypersensitivity reactions can be aggravated in patients on betablockers and particularly in the presence of bronchial asthma. These patients may be refractory to standard treatment of hypersensitivity reactions with beta agonists. Impaired renal function: Prior to administration of gadoteric acid, it is recommended that all patients are screened for renal dysfunction by obtaining laboratory tests. There have been reports of Nephrogenic Systemic Fibrosis (NSF) associated with use of some gadolinium-containing contrast agents in patients with severe renal impairment (GFR < 30 mL/min/1.73 m<sup>2</sup>). As there is a possibility that NSF may occur with Dotarem, it should only be used in these patients after careful consideration. CNS disorders: As with other contrast agents containing gadolinium, special precautions should be taken in patients with a low seizure threshold. Precautionary measures, e.g. close monitoring, should be taken. All equipment and drugs necessary to counter any convulsions which may occur must be made ready for use beforehand. **Interactions with other medicinal products and other forms of interaction:** No interactions with other medicinal products have been observed. Formal drug interaction studies have not been carried out. **Fertility, pregnancy and lactation:** Gadoteric acid should not be used during pregnancy unless the clinical condition of the woman requires use of gadoteric acid. Continuing or discontinuing breast feeding for a period of 24 hours after administration of gadoteric acid, should be at the discretion of the doctor and lactating mother. **Effects on ability to drive and use machines:** No studies on the effects on the ability to drive and use machines have been performed. Ambulant patients while driving vehicles or operating machinery should take into account that nausea may incidentally occur. **Undesirable effects:** Uncommon (≥1/1000 to <1/100): hypersensitivity, headache, dysgeusia, dizziness, somnolence, paraesthesia (including burning sensation), hypotension, hypertension, nausea, abdominal pain, rash, feeling hot, feeling cold, asthenia, injection site reactions (extravasation, pain, discomfort, oedema, inflammation, coldness). Rare (≥1/10 000 to <1/1 000): anxiety, presyncope, eyelid edema, palpitations, sneezing, throat tightness, vomiting, diarrhea, salivary hypersecretion, Urticaria, pruritus, hyperhidrosis, chest pain, chills. Very rare (<1/10 000): anaphylactic reaction, anaphylactoid reaction, agitation, coma, convulsion, syncope, tremor, parosmia, conjunctivitis, ocular hyperaemia, vision blurred, lacrimation increased, tachycardia, cardiac arrest, arrhythmia, bradycardia, flushing, pallor, vasodilatation, hot flush, cough, dyspnoea, nasal congestion, respiratory arrest, bronchospasm, throat irritation, laryngospasm, pharyngeal oedema, dry throat, pulmonary oedema, erythema, angioedema, eczema, muscle cramps, muscular weakness, back pain, arthralgia, malaise, chest discomfort, pyrexia, face oedema, injection site necrosis (in case of extravasation), phlebitis superficial, decreased oxygen saturation, Not known: nephrogenic systemic fibrosis. **Overdose:** Gadoteric acid can be removed by haemodialysis. However there is no evidence that haemodialysis is suitable for prevention of nephrogenic systemic fibrosis. **Please note:** The peel-off tracking label on the vials or syringes should be stuck onto the patient record to enable accurate recording of the gadolinium contrast agent used. The dose used should also be recorded. If electronic patient records are used, the name of the product, the batch number and the dose should be entered into the patient record. **Pharmacological properties:** Pharmacotherapeutic group: paramagnetic contrast media for MRI, ATC code: V08CA02. **Presentation (\*):** 5, 10, 15, 20, 60 & 100 mL in vial (glass) and 10, 15 & 20 mL in a pre-filled syringe (glass). **Marketing authorization holder: (\*) Information:** Guerbet - BP 57400 - F-95943 Roissy CdG cedex – FRANCE. Tel: 33 (0) 1 45 91 50 00. **Date of revision of this document:** February 2018

For current and complete prescribing information refer to the package insert and/or contact your local Guerbet organization.

**Reporting of suspected adverse reactions is important as it helps to continuously assess the benefit-risk balance. Therefore, Guerbet encourages you to report any adverse reactions to your health authorities or to our local Guerbet representative.**

Guerbet



## Our key values:

ACHIEVE | COOPERATE | CARE | INNOVATE



1901  
Start of the life  
of Guerbet <sup>14</sup>



More than  
**200 people**  
work in the R&D.  
In 10 years Guerbet has  
invested **393M€** in R&D



**2700**  
**employees**  
worldwide  
+ **60 distributors**



Guerbet is **a pioneer** in the contrast-agent field, with more than **90 years** of experience and a **leader in** medical imaging worldwide.



It offers **a comprehensive range** of pharmaceutical products, medical devices and services for diagnostic and interventional imaging.



**8% of the revenue** and more than **200 employees** are **dedicated to R&D**. Guerbet (GBT) is listed on Euronext Paris and generated 790 million in 2018 revenue.

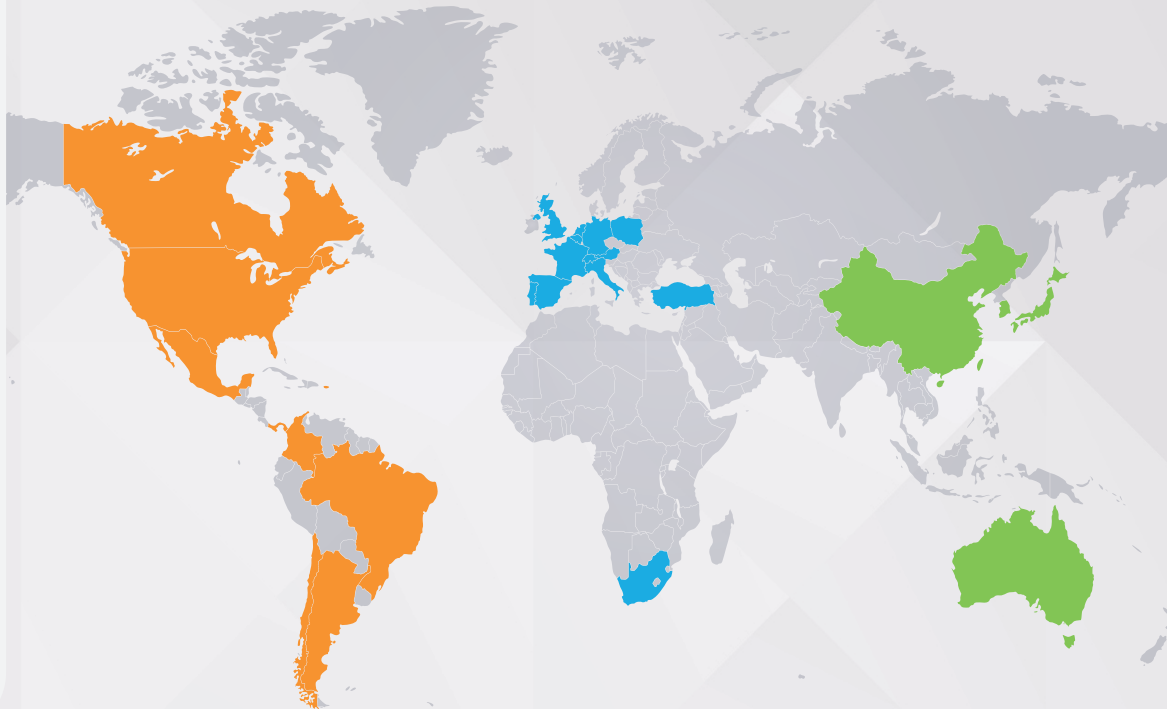
FOR MORE THAN A CENTURY, GUERBET CONTRIBUTES TO THE BIG PHARMACEUTICAL DISCOVERIES IN DIAGNOSTIC PER IMAGING

## Our affiliates:

**EMEA (Europe, Middle East and Africa),** Guerbet is one of the leaders in MRI (13 affiliates)

**America,** Guerbet is well established in latin America and expands its presence in the North American market (9 affiliates)

**Asia-Pacific,** the dynamic nature of the Asia-Pacific market offers the Group substantial potential for growth (6 affiliates)



Austria, Belgium, France, Germany, Italy, Netherlands, Poland, Portugal, South Africa, Spain, Switzerland, Turkey, United Kingdom  
Argentina, Brazil, Canada, Chile, Colombia, Mexico, Panama, Puerto Rico, USA  
Australia, China, Hong Kong (Asia-Pacific), Japan, South Korea, Taiwan

**DOTAREM®**  
Gadoteric acid



Guerbet



COMMITTED

**DOTAREM®**  
Gadoteric acid

LAUNCHED IN 1989,  
DOTAREM® IS THE **FLAGSHIP  
PRODUCT** OF GUERBET.



## A LEADING CONTRAST MEDIA WORLDWIDE

**1<sup>ST</sup>**

The **first**  
**high stability**  
**macrocyclic GBCA\***  
in the market <sup>1</sup>

**30  
YEARS**

**30 years** of  
experience

**91  
MILLION**

More than **91  
million doses**  
injected globally <sup>2</sup>

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\*gadolinium-based contrast agent \*\*Indications may differ from country to country.

Available in more  
than **70 countries**

No confirmed unconfounded  
cases of Nephrogenic Systemic  
Fibrosis (NSF) <sup>3,4</sup>

A high kinetic stability provided  
by the macrocyclic structure <sup>5</sup>

Low rate of adverse events  
in adults & children <sup>6-13</sup>

No visible brain hyperintensities  
related to dechelated Gd  
following repeated injections <sup>14-18</sup>

Optimal performance in **adults**  
and **children diagnoses** <sup>19-20</sup>

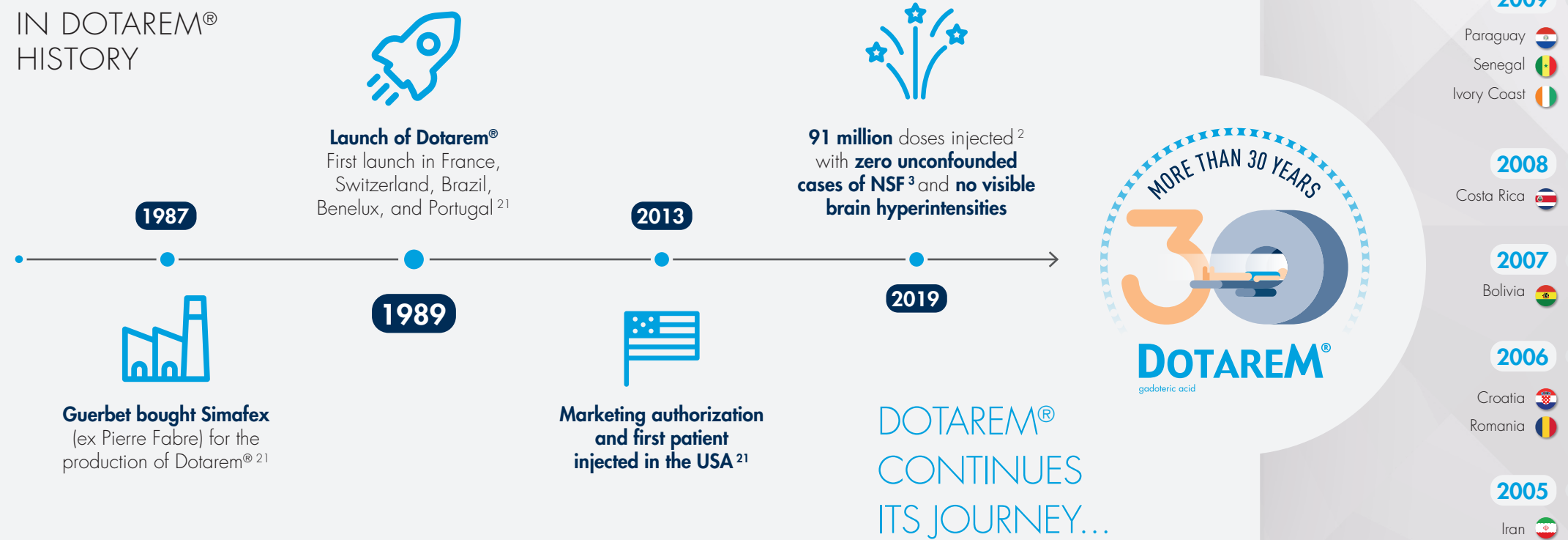
**DOTAREM®** is available in vials  
and prefilled syringes



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## KEY DATES IN DOTAREM® HISTORY



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