



Gadolinium-containing MR contrast agents and communication practices in EU member states

Healthcare Professionals Working Group
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Overview

- Introduction to the safety issue gadolinium and nephrogenic systemic fibrosis – **what is the problem?**
- Survey on communication practices in the EU – **major findings**
- List of questions to the HCP-WG – **summary of responses**
- Communication in 2012 – **new initiatives**



What is gadolinium (Gd) ?

<http://en.wikipedia.org/wiki/Gadolinium>

- Rare silvery-white earth metal (^{64}Gd) with paramagnetic properties, named after the Finnish chemist and geologist Johan Gadolin
- Constituent in many minerals; main mining areas China, US, Brazil, India, Australia; world production 400 tonnes per year
- No known native biological role, but is used as research tool in biomedicine; Gd^{3+} component of Magnetic Resonance Imaging contrast agents



Gadolinium-based contrast media

Approved indications

- Whole body MRI
- Cranial and spinal tomography
- Myocardial perfusion
- Renal transplant function
- Osteo-articular pathology
- **Nine GdCAs marketed**
 - **Low, medium and high risk products in relation to NSF**



Nephrogenic Systemic Fibrosis

- Index case described in 2000 (Cowper, Lancet)
- Fibrosis in skin and inner organs
- Major clinical signs:
 - Joint contractures, discoloration of skin, plaques, cobblestoning, peau d'orange
- Major histopathological signs
 - Increased cellularity (fibrocytes)
- Multiple differential diagnosis (dermatology, rheumatology)
- Renal insufficiency seems to be a prerequisite !



What is the safety concern?

- Gadolinium is extremely toxic to human tissue
- In the MRI contrast media gadolinium is encapsulated (chelated)
- Hypothesis: In some patients gadolinium escapes the capsule (trans-metallation) and is deposited in the skin
- The gadolinium deposits activate / recruit fibrocytes





Survey on communication practices in the EU....

- List of questions to member states – for details see back-up slides...
 - Questions regarding tools, channels and timing
- Major findings are the following....





Survey on communication practices

Major findings

- The communication practice across the EU show some similarities, however is not completely harmonised. The communication initiatives vary both with respect to applied tools, channels and timing.
- Class communication is the favoured option, most often done on the initiative of the regulatory agency.
- All responding MSs published as minimum information on their website, and the agreed key elements were used.
- Website publication was supplemented with publications in national bulletins and / or communication sent to scientific societies.
- Diversity with regard to the timing of the communication





LoQs to HCPWG

1. Please provide your **general** comments on the communication practice across the EU.
2. Please provide, in terms of **appropriateness and strengths / weaknesses**, your view on
 - a. the applied **tools** (e.g. Direct Health Professional Communication letters, key messages)
 - b. **channels** (e.g. website, national bulletin, via scientific societies)
 - c. **timing**
3. Please provide **proposals for** ways of **strengthening** the communication practice.



LoQs to HCPWG cont.

4. In your view, where **differential risk** is identified across a class, are subsequent recommendations most usefully communicated in a **single communication** or as **individual DHPCs**?
5. In terms of promoting **adherence to risk minimization** measures, how important is **awareness of the evidence** for the risk assessment which underpins the recommendations?
6. In your view, are there **particular challenges** associated with the implementation of risk minimization measures targeted at **special populations** e.g. infants/elderly?



Summary of responses from ESR and EULAR

- Preferred option – a combination of global letters directed to HCPs and sent by the regulatory authorities **and** publication on a few relevant websites
- In the Gd/NSF case the communication was not entirely clear; still uncertainty regarding recommendations on renal function test
- Summary of Product Characteristics are not a suitable communication tool
- The evidence base for the proposed risk minimization measures should be provided
- No challenges foreseen with future use in children; some adults have denied examination with GdCA





Transparency and Communication New Initiatives

- Coordination of safety announcements
- Web portals
- Public hearings



PRAC and Transparency

Regulation EU 1235/2010 states that in order to increase transparency as regards pharmacovigilance issues a European medicines web portal should be created and maintained by the Agency in collaboration with Members States and the Commission



**Agenda &
Minutes**

Assessments

Decisions

**Opinions
Agreements
Positions**

Recommendations

All available
to the public!





Thank you for your attention....

