

Table 2: Overview of Gadolinium-based Contrast Agents

Product	Structure/Application	Indication
Artirem/Dotarem/Dotarem Arthro (Gadoterate meglumine)	Macrocyclic / intra-articular	For MRI in brain (intracranial), spine and associated tissues in adult and pediatric patients (including term neonates) to detect and visualize areas with disruption of the blood brain barrier (BBB) and/or abnormal vascularity.
Gadovist (Gadobutrol)	Macrocyclic / i.v.	For adults and children of all ages including full-term newborns for contrast enhancement in cranial and spinal MRI. This includes differentiation of intra- and extramedullary tumors, demonstration of solid tumor areas in known syrinx, determination of intramedullary tumor spread.
Prohance (Gadoteridol)	Macrocyclic / i.v.	For use in MRI in adults and children over 2 years of age to visualize lesions with abnormal vascularity in the brain (intracranial lesions), spine and associated tissues, including lesions in the head and neck.
Magnevist (Gd-DTPA)	Linear / intra-articular	Used for MRI in adults, and pediatric patients (2 years of age and older) to visualize lesions with abnormal vascularity in the brain (intracranial lesions), spine and associated tissues. Contraindicated in patients with severe kidney disease
Magnevist (Gd-DTPA)	Linear / i.v.	Use suspended in EU. Contraindicated in patients with severe kidney disease
Multihance (Gadobenat dimeglumine)	Linear / i.v.	Use suspended in EU. In USA, used for MRI of CNS in adults and pediatric patients to visualize abnormal blood-brain barrier or abnormal vascularity of brain, spine and associated tissue. Also used in adults with known or suspected renal or aorto-ilio-femoral occlusive vascular disease
Omniscan (Gadodiamid)	Linear / i.v.	Use suspended in EU. Can cause spurious hypocalcemia, particularly at doses of 0.2 mmol/kg or higher in patients with renal insufficiency. Used in MRI to visualize lesions with abnormal vascularity (or those thought to cause abnormalities in the blood-brain barrier) in the brain (intracranial lesions), spine, and associated tissues, also used to facilitate the visualization of lesions with abnormal vascularity within the thoracic (noncardiac), abdominal, pelvic cavities, and the retroperitoneal space (FDA)
Optimark (Gadoversetamide)	Linear / i.v.	Use suspended in EU.
Primovist or Eovist (GdDTPA)	Linear / i.v.	To diagnose certain liver disorders and to visualize blood vessels, organs, and other non-bony tissues