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## Clinical protocol for the management of malignant hyperthermia.

[Article in English, Spanish]

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### Abstract

Malignant hyperthermia is a hypermetabolic syndrome that appears in susceptible patients after exposure to certain anaesthetic drugs (succinylcholine, inhalation anaesthetics). Its incidence in Spain is 1 in 40,000 adults, with a 10% mortality rate. It is induced by an abnormal regulation of the ryanodine receptors, producing a massive release of calcium from the sarcoplasmic reticulum in the striate muscle. Clinical manifestations include: CO<sub>2</sub> increase, tachycardia, haemodynamic instability, metabolic and respiratory acidosis, profuse sweating, hyperpyrexia, CPK increase, myoglobinuria, kidney failure, disseminated intravascular coagulation (DIC), and ending in cardiac arrest. Dantrolene sodium is a ryanodine receptor antagonist, and inhibits the release of intracellular calcium. Definitive diagnosis is achieved by the exposure of muscle fibres to caffeine and halothane. Protocols can help guarantee a reliable and secure management when this severe event occurs.

**KEYWORDS:** Dantrolene sodium; Dantroleno sódico; Hipertermia maligna; Malignant hyperthermia; Receptor de rianodina; Ryanodine receptor

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