**Commercial Products of Modified-Release Technologies: A Decade of Innovation**

Jun Ho Jeong, **Jin Woo Park**, Sang Woo Kim, Kwan Hyung Cho.

Department of Pharmacy, Inje University, Gimhae, Gyeongsangnam-do, Republic of Korea.

**Background and aims.** Over the past decade, advances in modified-release (MR) drug formulations have enabled controlled and sustained drug release. This study aims to examine the distribution and characteristics of novel and incrementally modified modified-release (MR) drugs (IMDs), identify their therapeutic indications, and explore their clinical applications.

**Methods.** An in-depth analysis was conducted on the trends and technologies of MR drugs approved worldwide over the past decade. The analysis focused on two major categories of MR formulations. Extended-release (ER) systems are designed to provide sustained drug delivery for chronic conditions, while delayed-release (DR) systems initiate release at predetermined times or in response to physiological signals.

**Results.** Matrix systems (n=11), multilayer beads (n=8), and ion exchange resins (n=6) represented the most common ER platforms, with over 24 novel ER drugs and 7 modified ER formulations introduced to the market. In contrast, fewer than 10 novel DR drugs have been approved over the past decade, with pH-dependent coatings (n=7) representing the most common platform. ER formulations have been applied to various therapeutic areas, with use in conditions such as ADHD (e.g., Jornay PM), chronic pain (e.g., Lumryz), major depressive disorder, type 2 diabetes, and Parkinson’s disease. DR formulations have also been applied to various therapeutic areas, with use in conditions such as multiple sclerosis and Helicobacter pylori infection. In particular, recently approved products such as Auvelity (an ER antidepressant) have demonstrated improved patient compliance, reduced dosing frequency, and fewer side effects.

**Conclusion/Discussion.** Advances in MR technology, particularly ER systems, are expected to enhance therapeutic efficacy, expand clinical applications, and address unmet medical needs, improving healthcare outcomes.

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**References:**

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