Formulation technologies supporting patient centric drug product design to address the needs of special patient populations

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Abstract (300 word limit)

Oral drug administration provided as solid oral dosage forms (SODF) remains the major route of drug therapy in primary and secondary care. There is clear evidence for a growing number of clinically relevant swallowing issues (e.g., dysphagia) in the older patient population, especially when considering the multimorbid, frail, and polymedicated patients. Swallowing impairments have a negative impact on SODF administration, which leads to poor adherence and inappropriate alterations (e.g., crushing, splitting). Different strategies have been proposed over the years in order to enhance the swallowing experience with SODF, by using conventional administration techniques or applying swallowing aids and devices. Nevertheless, new formulation designs must be considered by implementing a patient centric approach in order to efficiently improve SODF administration by older patient populations. Together with appropriate SODF size reductions, innovative film coating materials that can be applied to SODF and provide swallowing safety and efficacy with little effort being required by the patients are still needed. Scientific evidence demonstrating the benefits of given SODF coating materials in the concerned patient populations are still very limited. Consequently, the availability for safe, effective, and clinically proven solutions to address the increasing prevalence of swallowing issues in the older patient population are still limited.

Image



Recent Publications (minimum 5)

1. Drumond N, Stegemann S (2021) Better Medicines for Older Patients: Considerations between Patient Characteristics and Solid Oral Dosage Form Designs to Improve Swallowing Experience. Pharmaceutics, 13, 32.
2. Drumond N, Stegemann S (2020) An Investigation into the Relationship between Xanthan Gum Film Coating Materials and Predicted Oro-Esophageal Gliding Performance for Solid Oral Dosage Forms. Pharmaceutics, 12, 1241.
3. Drumond N (2020) Future Perspectives for Patient-Centric Pharmaceutical Drug Product Design with Regard to Solid Oral Dosage Forms. J Pharm Innov 15, 318–324.
4. Drumond N, Stegemann S (2019) An evaluation of the gliding performance of solid oral dosage form film coatings using an artificial mucous layer. Colloids Surf B Biointerfaces May 1;177:235-241.
5. Drumond N, van Riet-Nales DA, Karapinar-Çarkit F, Stegemann S (2017) Patients' appropriateness, acceptability, usability and preferences for pharmaceutical preparations: Results from a literature review on clinical evidence. Int J Pharm. Apr 15;521(1-2):294-305..

Photograph



Biography (150 word limit)

Nélio Drumond is a PharmD by training with a PhD in Patient Centric Drug Product Design. He shares several years of experience in the Pharmaceutical Industry, providing scientific leadership to govern the formulation and manufacturing strategies for drug product development programs during clinical stages, including their scalability and validation for commercial use. Currently, Dr. Drumond is responsible for the technical management and leadership of commercial manufacturing activities at different Contract Manufacturing Organizations (CMOs) for an established portfolio of Takeda products within the EMEA region.

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Notes/Comments: It was agreed that coverage for travel costs will be applicable if event obtains sponsorship.