

# A Review on Pharmaceutical Liquid Dosage Form

Narute Yogesh Ankush, Rokade Anita Suresh, Ajay V. Ade, Dr. Khedkar Amol. N.<sup>1</sup>, Kopnar V. P.<sup>1</sup>

Saikrupa Institute of Pharmacy, Ghargaon, Maharashtra, India

**Abstract:** *Pharmaceutical liquid dosage forms are the liquid solutions that can be ingested, applied topically, or administered intravenously. These dosage forms are made up of a mixture of active medicines and excipients that produce a quick beginning of action after ingestion and provide the best therapeutic response in a given population. Pharmaceutical liquid dose forms are helpful and efficient for pediatric, elderly, and comatose patients who have difficulty swallowing solid dosage forms such as pills, capsules, and other medications. As a result, pharmaceutical liquid dosage forms are extremely important in the treatment and management of a wide range of disorders around the global. This article covers a wide range of topics related to pharmaceutical liquid dosage forms, including classification, benefits and drawbacks, excipients utilised in pharmaceutical liquid dosage forms, solubility enhancement techniques, and some of the instruments used to improve mixing.*

**Keywords:** Solubility; Bioavailability; Excipients; Lipophilicity.

## BIBLIOGRAPHY

- [1]. Peter ASA., et al. "A Study on the Different Methods of Preparation of Lutein from Supercritical Fluid Processed Lutein Esters". *Journal of Nutrition and Food Sciences* 2 (2012): 154.
- [2]. Allen L. "Art, Science, and Technology of Pharmaceutical Compounding, (The) 5e". Washington, DC: American Pharmacists Association (2016).
- [3]. Marriott J., et al. "Pharmaceutical compounding and dispensing". 2nd ed. Pharmaceutical Press (2010).
- [4]. White AR. "The Success of Solanezumab Should Drive Renewed Efforts to Develop Small Molecule Anti-Amyloid Agents for Alzheimer's disease Therapy". *Drug Designing* 4 (2015): e128.
- [5]. Gomase VS and Kale KV. "Information of Surface Accessibility of the Peptide Fragments of Coat Protein from Alfalfa mosaic virus (AMV) at the Physicochemical and Immunochemical Levels". *Drug Designing* 4 (2015): 119.
- [6]. Chow SC. "On Assessment of Analytical Similarity in Biosimilar Studies". *Drug Designing* 3 (2014): e124.
- [7]. Lopes CM. "Therapeutics Delivery: Innovations Technology Approaches". Lopes, *Drug Designing* 3 (2014): e123.
- [8]. Chow SC and Pong A. "Statistical Designs for Pharmaceutical/ Clinical Development". *Drug Designing* 3 (2014): 112.
- [9]. Anil Vaidya. "Drug Designing and Development: Emerging Role of Health Technology Assessment". *Drug Designing* 3 (2014): 111.
- [10]. Coelho M. "Fate of Vitamins in Premixes and Feeds: Vitamin Stability". *Feed Management* 42.10 (1991): 24.
- [11]. Manzur Ul and Haque H. "Assay of Vitamins in Pharmaceutical Preparations". 7.10 (1972): 213-226.
- [12]. Howard CA., et al. "Pharmaceutical Dosage Forms and Drug Delivery Systems". 7Edn (2000): 38-64.
- [13]. Kumar P and Bose PP. "Targeted Delivery of Paromomycin to Leishmania Infected Macrophage by Hemoglobin Tagged Nanocarrier". *Journal of Applied Pharmaceutical Science* 8 (2015): 212.
- [14]. Nelson DH and Samuels LT. "A Method for Determination of 17-Hydroxycorticosteroids in Blood: 17-Hydroxycorticosterone in the Peripheral Circulation". *The Journal of Clinical Endocrinology and Metabolism* 12 (1952): 519.
- [15]. Glenn EM and Nelson DH. "Chemical Method for the Determination of 17-Hydroxycorticosteroids and 17-Ketosteroids in Urine Following Hydrolysis With  $\beta$ -Glucuronidase". *The Journal of Clinical Endocrinology and Metabolism* 13 (1953): 911.

- [16]. Nelson DH., et al. "Blood Levels of 17-Hydroxycorticosteroids Following the Administration of Adrenal Steroids and Their Relation to Levels of Circulating Leukocytes". *Journal of Clinical Investigation* 31 (1952): 843.
- [17]. Tan E., et al. "Dosing information for paediatric patients: are they really 'therapeutic orphans'?" *Medical Journal of Australia* 179.4 (2003): 195-198.
- [18]. Ekinci R and Kadakal C. "Determination of seven water-soluble vitamins in Tarhana, a traditional Turkish cereal food, by High- Performance Liquid Chromatography". *Acta Chromatographica* 15 (2005): 289-297.
- [19]. Lee V H L and Robinson I R. "Ocusersts for improved drug delivery and better patient compliance". *Journal of Pharmaceutical Sciences* 68.1 (1979): 673.
- [20]. Ancha MJ., et al. "Formulation and evaluation of pediatric azithromycin suspension". *International Journal of Pharma and Bio Sciences* 1 (2010): 1-2.
- [21]. Marriott J., et al. "Pharmaceutical compounding and dispensing". 2nd ed. Pharmaceutical Press (2010).
- [22]. "Remington: The Science and Practice of Pharmacy". London: Pharmaceutical Press (2012).
- [23]. "The science of pharmaceutical compounding: non-sterile training". Montreal: LP3 Network Inc (2018).
- [24]. DJ Burgess., et al. "Assuring quality and performance of sustained and controlled release parenteral". *AAPS PharmSciTech* 4 (2002): E7.
- [25]. Carstensen TJ. "Theory of Pharmaceutical systems". Academic press; NY, (1973): 59.
- [26]. A Liberman., et al. "Gilbert's Pharmaceutical Dosage forms Dispersed systems". Marcel Dekker 2 (1996): 285.
- [27]. MJ Akers., et al. *Journal of parenteral science and Technology* 41 (1987): 88.
- [28]. ES Antal., et al. "Comparative bioavailability of two medroxy progesterone acetate suspensions". *International Journal of Pharmaceutics* 54 (1989): 33-39.
- [29]. Agarwal SP and Rajesh K. "Physical Pharmacy". CBS Publisher, Delhi, India (2007): 177-186.
- [30]. Aulton ME. "Pharmaceutics the science of dosage form design". Charchil Livingston, London, United Kingdom (1996): 282- 299.
- [31]. Javed ., et al. *Emulsion* (2008).
- [32]. Brazeau GA and Fung HL. "Mechanics of retaining kinase release from isolated rat skeletal muscles damaged by propylene glycol and ethanol". *Journal of Pharmaceutical Sciences* 79 (1990): 397.
- [33]. Quay JF and Stucky JF. "Non aqueous cephalosporin suspension for parenteral Administration". *Journal of Pharmaceutical Sciences* 11 (1989): 1602-1606.
- [34]. British Pharmacopoeia, London, Appendix XVIC (1993): A191192.
- [35]. Huettenrauch R. "Stabilization of suspension". DD 209970. AI 840530. (1989).
- [36]. Michael H., et al. "Part 1: "Oral Delivery of Poorly Soluble Drugs Pharmaceutical Manufacturing and Packing Sourcer". Summer Samedan Ltd, (2003): 03.
- [37]. Brahmkankar DM and Jaiswal SB. "Biopharmaceutics and Pharmacokinetics - A treatise". Vallabh Prakashan, Delhi, India (2002).
- [38]. Serajuddin ATM. "Salt formation to improve drug solubility". *Advanced Drug Delivery Review* 59 (2007): 603-616.
- [39]. Seshadri N. "Small Molecule Pharmaceutics - Amgen Inc. Strategies to Impact Solubility and Dissolution Rate during Drug Lead Optimization: Salt Selection and Prodrug Design Approaches". *APR* 7 (2004): 108-113.
- [40]. Chawla RC., et al. "Effect of alcohol cosolvents on the aqueous solubility of trichloroethylene". *Proceedings of the 2001 conference on environmental research* (2001): 52-66.
- [41]. Ohta, M., et al. "Evaluation of solubility parameter to predict apparent solubility of amorphous and crystalline Cefditoren Pivoxil". *Pharmaceutica Acta Helvetiae* 74 (1999): 59-64.
- [42]. Merisko Liversidge E., et al. "Nanosizing: a formulation approach for poorly-water-soluble compounds". *European Journal of Pharmaceutical Science* 18 (2003): 113-120