

INDO GLOBAL JOURNAL OF PHARMACEUTICAL SCIENCES ISSN 2249- 1023

Application of SNEDDS in Overcoming Oral Bioavailability of Poorly Soluble Drugs

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Received: 01.03.2019 **Accepted:** 25.03.2019

KeywordsNanoemulsion;
SNEDDS;
Bioavailability.

ABSTRACT: Poor aqueous solubility of drugs has been a consistent challenge for formulation scientists in order to design a suitable dosage form as these drugs lack dissolution limited oral bioavailability. Self nanoemulsifying drug delivery system (SNEDDS) is an isotropic mixture of oil, surfactant and co-surfactant, which upon dilution and mild agitation in water produces an oil in water nano emulsion. SNEDDS maintain the drug in the dissolved form and improve its solubility and bioavailability. Hence, the drugs of the class II and IV of BCS are the suitable candidates for the SNEDDS. When SNEDDS ingested by oral route it forms nano emulsion in the gastric media in the form of nano scale oil droplets which contains the drug. Afterwards, these oil droplets get easily absorbed from the gastric fluid via lymphatic system. Physically SNEDDS are more stable when compared to emulsion and can be easily prepared on large scale also. The current presentation discusses the formulation strategies and application of SNEDDS. © 2019 iGlobal Research and Publishing Foundation. All rights reserved.

Cite this article as: Kumar, R.; Khurana, N.; Singh, S.K.; Khurana, S. Application of SNEDDS in overcoming oral bioavailability of poorly soluble drugs. Indo Global J. Pharm. Sci., 2019; 9(2Suppl.): 110. **DOI**: http://doi.org/10.35652/IGJPS.2019.92S08.

Indo Global Journal of Pharmaceutical Sciences (ISSN 2249 1023; CODEN- IGJPAI; NLM ID: 101610675) indexed and abstracted in CrossRef (DOI Enabling), UGC CARE Journal List, EMBASE(Elsevier), National Library of Medicine (NLM) Catalog, ResearchGate, Publons, CAS (ACS), Index Copernicus, Google Scholar and many more. For further details, visit http://iglobaljournal.com

This is a special issue as an outcome of 'RAPSCON-2019' sponsored by APTI and organized by Sri Sai College of Pharmacy, Manawala, Amritsar, Punjab, India. Relaxation offered in journal format.