



3D Printing Applications for Transdermal Drug Delivery

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Abstract:

Objectives: The role of two and three-dimensional printing as a fabrication technology for sophisticated transdermal drug delivery systems is explored in literature. 3D printing encompasses a family of distinct technologies that employ a virtual model to produce a physical object through numerically controlled apparatuses. The applicability of several printing technologies has been researched for the direct or indirect printing of microneedle arrays or for the modification of their surface through drug-containing coatings. The findings of the respective studies are presented. The range of printable materials that are currently used or potentially can be employed for 3D printing of transdermal drug delivery (TDD) systems is also reviewed. Moreover, the expected impact and challenges of the adoption of 3D printing as a manufacturing technique for transdermal drug delivery systems, are assessed. Finally, this paper outlines the current regulatory framework associated with 3D printed transdermal drug delivery systems.

Investigate whether policosanol administered for 3 years was able to reduce the incidence of vascular serious adverse events (SAE) in older hypercholesterolemic patients.

Keywords: 3D Printing, Inkjet printing, Microneedles, Patches, Transdermal delivery, Pharmaceutics

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Biography:

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