

医薬品産業における Digital Health の活用 ～ Digital がもたらす 治験・臨床研究の変革～

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Transforming clinical trials with Digital Health technology in the pharmaceutical industry

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Abstract

In recent years, digital technology, such as IoT (Internet of Things) and AI (Artificial Intelligence), has become an important driving force for innovations in various industries, including the pharmaceutical industry. This article focuses on the use of such digital technologies, particularly in the field of clinical trials and clinical research. The first half of the article describes clinical trials and clinical research using wearable devices, as well as Virtual Clinical Trials conducted on the Web. The second half summarizes the expectations and issues that need to be addressed for the realization of large-scale secondary use of PHRs (Personal Health Records) in the future in line with the global trend toward data portability.

Key words

Digital Health, IoT (Internet of Things), Virtual Clinical Trial, PHR (Personal Health Record), data portability

Rinsho Hyoka (Clinical Evaluation). 2019 ; 47 : 49-58.

抄録

近年, IoT (Internet of Things) や AI といったデジタルテクノロジーの活用は, 様々な業界のイノベーションにおいて重要な駆動力となっており, 医薬品産業もそのうちの一つである. 本稿では, 医薬品産業の中でも特に治験・臨床研究の分野に焦点を当て, こうしたデジタルテクノロジーの活用についてまとめている. 前半は, ウェアラブルデバイスを活用した治験・臨床研究や Web ベースで行う Virtual Clinical Trial についてまとめている. 後半は, 世界的なデータポータビリティの潮流を踏まえた将来的な PHR (Personal Health Record) の二次利用の大規模な拡大への期待と課題についてまとめた.

キーワード

デジタルヘルス, IoT (Internet of Things), Virtual Clinical Trial, PHR (Personal Health Record), データポータビリティ