Omboni S, Campolo L, Panzeri E.

Telehealth in chronic disease management and the role of the Internet-of-Medical-Things: the Tholomeus $^{\circledR}$ experience.

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Introduction

Telehealth is used to remotely and timely deliver clinical care, and its effectiveness for managing the most common chronic diseases has been proved by several studies.

Areas covered

Tholomeus[®] is a web-based clinically validated and certified telehealth solution operating in the context of the Internet-of-Medical-Things. It favors closed-loop connectivity between patients and caregivers, according to multidisciplinary and multifaceted interventions. Evidence collected in the last decade in 1,471 healthcare facilities and 135,333 patients has documented the usefulness of the service for improving access to care, and enhance screening and management of arterial hypertension, heart disease, chronic obstructive pulmonary disease, and obstructive sleep apnea. In addition to professional diagnostic tests, an AndroidTM Tholomeus[®] app used by 3,654 consumers in the last three years has helped document a high prevalence of impaired glucose tolerance, overweight or obesity, dyslipidemia, or uncontrolled blood pressure among users.

Expert opinion

The telehealth approach to chronic disease management is currently characterized by a high heterogeneity of solutions, often not supported by robust evidence for clinical efficacy and safety. The Tholomeus® solution seems to satisfy the current recommendations of software as a medical device solution, although further clinical evidence needs to be collected in prospective studies.

Article highlights

- Telehealth is a promising approach to chronic disease management, as documented by several studies
- Recent improvements in technologies and infrastructures, and increased awareness among healthcare professionals and patients, has favored the diffusion of telehealth services
- The heterogeneity of solutions and interventions, the lack of clinical validation and certification for many solutions, as well as the lack of integration in current healthcare systems are currently hindering the optimal use of telehealth services
- Tholomeus[®] is a clinically validated and certified web-based telehealth solution with significant evidence of clinical effectiveness for chronic disease management

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