

# Mobile Health (mHealth) for Chronic Wound Management: A Review of the Literature

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### Aim

Considering the widespread use of mobile phones in healthcare, the aim of this review was to reveal the role of mhealth technology in the management of chronic wounds through self-care or self-management enhancement of the patients and improving access to health care providers.

# Methods

We searched PubMed, Scopus, Web of Science and Embase databases for studies reporting the use of mobile phones for managing chronic wounds. The electronic search was conducted in May 2017 and returned 656 records. After removing duplicates and screening at title/abstract level, the full text of 499 papers was examined and 68 studies met the inclusion criteria. We then checked the reference list of retrieved review papers and hand searched the Journal of Medical Internet Research, which identified seven more papers.

#### Results

We identified 75 papers reporting the use of mobile phones for chronic wounds management. The most common types of the wound under study were lower extremity wound and pressure ulcer with 30 and 20 papers respectively. 45 studies were designed for monitoring and controlling of wounds, 19 for prevention, 7 for detection and diagnosis, 2 for wound treatment and 2 for self-management enhancement by patients. The mobile apps have been developed for both patients and health care providers. Remote wound care, image capturing and transforming, collecting and analysing individual's data, messaging, and alerting have been the main applications for mobile phones. The most dominant technologies used in studies were image-processing algorithms, interface between sensors, mobile Apps and wearable devices.

## Conclusion

The use of mobile phone for chronic wound management could help to provide high-quality care, increase the knowledge of the providers, patients and their relatives, facilitate remote wound care, reduce the cost of patient care/patient transportation and decrease rate of infection, amputation and consequently mortality rate. Key word: Chronic Wound, Mobile phone, mHealth, Mobile health, Smartphone.

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