# INPLASY PROTOCOL

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# Prevalence and patterns of mobile device usage among physicians in clinical practice: a systematic review

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Review question / Objective: The aim of this review is to systematically analyze quantitative data extracted from studies on the use of mobile devices by physicians in clinical practice in order to be able to derive concrete statements on the prevalence, patterns, and trends of usage.

Condition being studied: Prevalence, patterns, and trends of mobile device usage by physicians in clinical practice.

Main outcome(s): With this review, we want to open a new perspective on the use of mobile devices. Together with the information from qualitative reviews, the particular relevance of mobile devices for KM strategies in hospitals can be viewed in its entirety.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 May 2022 and was last updated on 13 May 2022 (registration number INPLASY202250087).

### INTRODUCTION

Review question / Objective: The aim of this review is to systematically analyze quantitative data extracted from studies on the use of mobile devices by physicians in clinical practice in order to be able to derive concrete statements on the prevalence, patterns, and trends of usage. Condition being studied: Prevalence, patterns, and trends of mobile device usage by physicians in clinical practice.

### **METHODS**

Search strategy: Five electronic databases (PubMed, Scopus, APA PsycInfo, Web of

Science, Business Source Ultimate) were searched in April 2021. The following Boolean search string was created for the advanced database searches (Title/Abstract): (smartphone\* OR "mobile phone\*" OR "mobile application\*" OR "cell phone\*" OR "smart device\*" OR "mobile device\*" OR "mobile technolog\*" OR tablet\*) AND (physician\* OR doctor\* OR hospitalist\* OR resident\* OR "medical professional\*" OR "medical practitioner\*" OR "medical staff" OR clinician\* OR surgeon\* OR intern OR interns) AND (hospital\* OR clinic\* OR inpatient) AND (survey\* OR questionnaire\*).

Participant or population: Physicians in clinical practice.

Intervention: None.

Comparator: None.

Study designs to be included: Quantitative or mixed methods design with relevant quantitative information, cross-sectional, self-report questionnaire-based.

Eligibility criteria: Published in English or German (2012-present); peer-reviewed journal articles.

Information sources: PubMed, Scopus, APA PsycInfo, Web of Science, Business Source Ultimate.

Main outcome(s): With this review, we want to open a new perspective on the use of mobile devices. Together with the information from qualitative reviews, the particular relevance of mobile devices for KM strategies in hospitals can be viewed in its entirety.

# Quality assessment / Risk of bias analysis:

The quality of the included studies is assessed using the Joanna Briggs Institute (JBI) Critical Appraisal Checklist for Studies Reporting Prevalence Data.

Strategy of data synthesis: Data extraction sheet; box plots showing the prevalence of usage patterns.

Subgroup analysis: None.

Sensitivity analysis: None.

Country(ies) involved: Deutschland.

Keywords: Apps, clinical practice, knowledge management, mobile devices, physicians.

## Contributions of each author:

Author 1 - Judith Kraushaar. Author 2 - Sabine Bohnet-Joschko.