

OA-D-09

SURVEY OF SMARTPHONE APPLICATION USAGE FOR DIABETES MANAGEMENT IN TYPE-2 DIABETES MELLITUS PATIENTS IN RSUPN DR. CIPTO MANGUNKUSUMO JAKARTA

<https://doi.org/10.15605/jafes.034.02.S27>

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INTRODUCTION

The rapid development of smartphone technology nowadays has enabled a new way of diabetes self-empowerment through the smartphone application usage. This study is aimed to obtain an overview of how smartphone and smartphone applications are used for diabetes management among Type-2 Diabetes Mellitus (T2DM) patients in RSUPN Dr. Cipto Mangunkusumo Jakarta (RSCM), a tertiary care and a national referral hospital in Indonesia.

METHODOLOGY

This cross-sectional study was conducted in the Integrated Diabetic Clinic RSCM during the 2nd-to-3rd week of May 2019 by using a short questionnaire, of which assessed the level of smartphone ownership and smartphone application usage for diabetes management.

RESULTS

Thirty-one respondents participated in this study. The average age was 59 years-old and most of them were either retired (13/31, 41.9%) or not working (13/31, 41.9%). Only 11 respondents had a higher degree of education. While most of the respondents (18/31, 58.1%) had a basic monthly income <1 million IDR (60 USD), majority of respondents (27/31, 87.1%) had a smartphone, of which all of them were using Android. Only one respondent used it for diabetes management, while most of them used it only for standard communication purpose. This was due to the lack of information on available diabetes application.

CONCLUSION

The use of smartphone among T2DM patients in our tertiary care hospital was high despite their low socioeconomic status. However, the smartphone application usage for diabetes management was very low, necessitating the need of information dissemination related to the potential benefit of diabetes application to all T2DM patients.

KEY WORDS

smartphone, diabetes application, type 2 diabetes mellitus, self-management

OA-D-10

BACTERIA PATTERN OF URINE CULTURE FROM PATIENTS WITH DIABETES AT DR RAMELAN NAVY HOSPITAL SURABAYA, INDONESIA

<https://doi.org/10.15605/jafes.034.02.S28>

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INTRODUCTION

The presence of a bacteria pattern that is thought to be the cause of the infection is essential for the basis of empirical and definitive antibiotic treatment. The study aimed to find the bacteria pattern of urine culture from patients with diabetes.

METHODOLOGY

This was a descriptive, cross-sectional study. The sample was pus obtained from the 3rd grade of patients with diabetic foot who had clear signs of infection, and were hospitalized at Dr. Ramelan Navy Hospital in the period of 2016 to 2018 (3 years). Pus was taken before antibiotic administration, and the culture was done in the microbiology laboratory.

RESULTS

The number of pus samples collected was 1571 samples. Isolates that have bacterial growth and can be identified were 1328 samples (84.53%). Bacterial isolates found as the most common cause were *Escherichia coli* 17.17% (228). The second most prevalent bacterial isolates were *Staphylococcus aureus* (157 isolates). While the third rank in 2016, 2017 and 2018 were *Burkholderie pseudomallei* (35 isolates), *Klebsiella pneumonia* (39 isolates) and *P. aureginosa* (50 isolates) respectively. Meropenem and Piperacillin were found as the sensitive antibiotics in these patients in 2016. While no antibiotic was sensitive for *E. coli*, but meropenem, piperacillin and vancomycin were found sensitive for *S. aureus* and others in 2017. In 2018, *E. coli* was found sensitive to Amikacin and Meropenem, whereas other types of bacteria were resistant to antibiotics examined.