Type 2 diabetes mellitus (T2DM) is a complex chronic condition requiring multiple care processes, professional expertise and patient education in order to optimise control of risk factors to prevent complications. The IDMPS is an ongoing international, multicutlre, observational study, with 6 waves of data collection during the past 10 years in developing countries. The overall purpose of the IDMPS is to analyse and report the quality of care in diverse real-world settings to inform practice and policy [1,2,3].

OBJECTIVES

The objectives of this analysis were to estimate the effect of good management practices on 1) diabetes control and 2) utilisation of desirable and avoidable resources, at the patient and country level.

METHODS

Data on diabetes-related healthcare use were obtained from the 5th wave of the IDMPS which included patients from Africa, Eurasia, Middle-East, South-Asia and Turkey. International guidelines were used to define 1) "good management practices", 2) "desirable resources"/"avoidable resources" and 3) "diabetes control".

- **Good management practices** were based on 6 performance indexes:

  - **Performance index**: Reccomendations from international guidelines (in the past year)\(^*\)
  - **Number of HBa1c tests**: At least one test
  - **Number of blood pressure tests**: At least one test
  - **Number of blood lipid tests**: At least one test
  - **Diabetes education**: Structured courses or involved in an educational program
  - **Screening for complications**: 5/S complications screened\(^*\)

\(^*\)List of the 5 complications: cardiovascular disease, nerve damage, kidney damage, foot examination and eye screening.

Based on expert opinion, patients were considered as "adherent" if they validated 4 of 6 of the performance indexes (including HBa1c item). 

- **Desirable/avoidable resources**

  - "Desirable resources" included screening for complications (cardiovascular disease, nerve damage, kidney damage, foot examination and eye screening), GP (general practitioner) and specialist visits, tests (HBa1c, blood pressure and blood lipid), blood glucose self-monitoring and diabetes education (structured courses or educational program).
  - "Avoidable resources" included hospitalisations due to diabetes or complications and emergency room (ER) visits due to diabetes in the past 3 months and ER visits due to hypoglycaemia in the past 6 months

- **Diabetes control**

  - "Diabetes control" was defined based on three targets: HBa1c, blood lipid and blood pressure\(^*\). Based on expert opinion, patients were considered being "controlled" for their diabetes if they reached HBa1c target and one more target defined as 1) BP ≤130/80 mmHg or 2) LDL<2.0 mmol/L and HDL>1.0 mmol/L.

Logical regression models were used to explore the correlation between good management practices, desirable resources, avoidable resources and diabetes control, with adjustment for confounding factors: patient characteristics (age, gender, education, duration of diabetes, smoking status) and physician characteristics (age, sex, specialty, medicine practice duration, number of diabetic/insulinised patient per months).

RESULTS

Study population

A total of 8,209 adults with T2DM were included in the analyses. 53% were females and the mean (SD) age was 57.3 (10.8) years. The mean (SD) duration of diabetes was 8.6 (7.0) years. Patients were recruited from 18 countries and were grouped in 5 regions: Africa, Eurasia, Middle-East, South Asia and Turkey.

1) Good management, desirable resources and diabetes control

**Good management practices and desirable resources**

In the past 3 months, 85% of patients had at least one HBa1c visit and 33% had at least one specialist visit. In the past year, 53% of patients had at least 2 HBa1c tests, 51% had at least one blood pressure measurement, 81% had at least one blood lipid test and 40% were screened for all complications. 22% had diabetes education and 29% performed self blood glucose self-monitoring (Figure 1).

**Figure 1. Distribution of items used to define “good management practices”**

Overall, 21% (n=1,760) of patients had at least 2 HBa1c tests in the past year and adhered to 3 additional performance indexes (Figure 1).

**CONCLUSIONS**

Our study suggests that good management practices are associated with a reduction in avoidable resource consumption as well as improved diabetes control. This suggests that following established clinical recommendations could ensure not only good outcomes but also beneficial resource allocation.

**REFERENCES & ACKNOWLEDGEMENT**


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