

QUALITY OF LIFE PATIENT WITH DIABETES MELLITUS TYPE 2

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INTRODUCTION



A metabolic disease characterized by high blood glucose levels caused by abnormalities in insulin secretion, insulin action or both which can cause long-term damage, dysfunction of several body organs such as eyes, kidneys, nerves, heart and blood vessels (ADA, 2010)

RISK FACTOR DM



Physical Exercise on DM

- Is an activity that uses physical movements carried out by the body's muscles and supporting systems
- regularly 2-3 times a week
- About 30- 60 minute
- Expected effect-----control blood glucose and HbA1C



Research Design

- Longitudinal eksperimental quasi study
- Divided into 2 groups:
- Physical exercise group
- Non physical exercise group
- Blood Glucose and HbA1C compared

Inclusion Criteria

- Have blood glucose and HbA1C data when taken as research subjects more or less the same as the last 3 months before the study was carried out.
- Able to do sports activity

Exclusion Criteria

- Not with DMT2
 - unable to do physical exercise
 - Not willing to be the subject of research.

Sample Selection

DM type 2

inklusion dan exclusion Criteria

Fisrt Evaluatioj

Non Randomize

Physical Exercise

non Physical Exercise

Evaluation:

Blood Glucose, HbA1c

Cost

PROSEDUR INTERVENSİ

- Completion of the accompanying physical exercise questionnaire by medical personnel collecting research data
- Giving feedback on the results of filling out the questionnaire which explains the suitability of physical activity
- Determination of research subject identification number
- An explanation for maintaining a healthy diet and anti-diabetic treatment

OUTCOMES

- Controlled blood Glucose
- Controlled HbA1C
- Differences in blood glucose levels between two groups
- PDifferences HbA1C between two groups

Cost Effectiveness Analysis

- Evaluation alongside Clinical Trial base:
 - Patient level data
 - cost / patient
 - Bootstrapping
 - Calculation :

$$ICER = (C1 - C2) / E1 - E2$$

Note :

- C1 and E1: cost and effectiveness in the intervention group
- C2 and E2 : cost and effectiveness in the non-intervention group

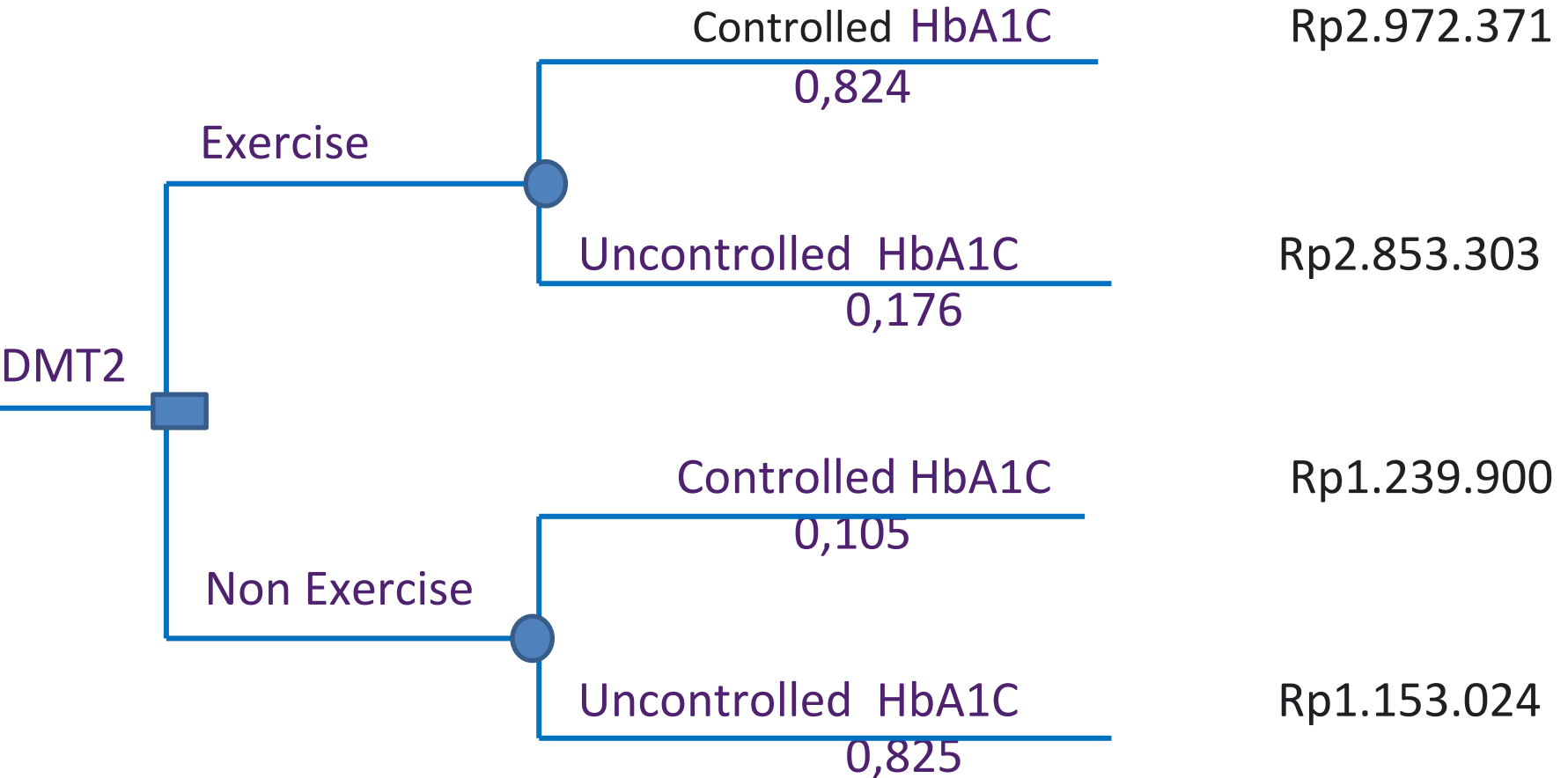
Effectiveness : Blood Glucose darah and

HbA1C Cost : cost component

Characteristic of Patients

Characteristic	Exercise	Non Exercise	p	Statistic Test
IMT	23,17 ± 2,75	23,47 ± 2,23	0,610	t-test independen
Systolic Blood Pressure	130,29 ± 7,97	133,42 ± 7,45	0,090	Mann-Whitney
Diastolic Blood Pressure	76,18 ± 9,29	79,21 ± 7,84	0,166	Mann-Whitney
HbA1C	7,46 ± 0,25	7,60 ± 0,29	0,060	Mann-Whitney
Blood Glucose:			0,067	t-test independen
GDP	136,50 ± 11,26	141,69 ± 12,29	0,076	t-test independen
GDPP	188,62 ± 8,47	193,13 ± 12,23		
Quality of life Score	0,78 ± 0,05	0,76 ± 0,07	0,147	Mann-Whitney

Decision Tree



Controlled % HbA1C, ACER and ICER

Variable	Exercise (n = 34)	Non Exercise (n=38)
% HbA1C success		
Controlled	0,824	0,105
Uncontrolled	0,176	0,825
Total Amount (Rp)	5.825.674	2.392.924
ACER	7.069.993	22.789.752
ICER		
Exercise Vs Non Exercise	<i>Rp2.409.562 per % HbA1C success of controlled</i>	

CONCLUSION

Exercise is more effective in controlling HBA1C than non Exercise

Quality of Life patients with exercise better than non exercise

The cost of physical training is economically efficient to lower 1% of HBA1C

THE END



Source image: www.michellecederberg.com

