Prevalence and Risk Factors for Medication Non-Adherence in T2DM

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Background

* Non-adherence to medication is one of the most serious problems facing health care system.

* It is often a hidden problem.

* Impact of non-adherence
R2R : Effects of Diabetic Drug Adjustment among Fasting Diabetic Patients during the Ramadan Period in Nongjik District, Pattani Province
* Age: 50 years old

* Poor controlled T2DM

* Co-morbid: HT and DLP

* Treatment: Glipizide 2x2 ac

MFM(500) 2x3 pc
Objective

To study the prevalence of medication non-adherence and its associated risk factors among patients with type 2 diabetes mellitus
Methodology

* Study design: cross-sectional study

* Sample: all T2DM at DM clinic of Nongjik Hospital from August to December 2013

* Exclusion criteria: diet control, not able to communicate
Data source

<table>
<thead>
<tr>
<th>Date</th>
<th>Scr</th>
<th>eGFR</th>
<th>Date</th>
<th>Scr</th>
<th>eGFR</th>
<th>Date</th>
<th>Scr</th>
<th>eGFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-08-30</td>
<td>1.200</td>
<td>53.195</td>
<td>2013-03-15</td>
<td>1.580</td>
<td>38.144</td>
<td></td>
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</tr>
</tbody>
</table>

**Rx**

- **MeTHYLDopa tab [Aldomet]** 250 mg 12at (1 เม็ด * 2 AC)
- **BI-6 12 tab [FORTE]** (กว้างขวาง จำนวน 11 pt (1 เม็ด OD เม็ด)
- **aspirin EC tab 81 mg เม็ด** 11 pt (1 เม็ด OD เม็ด)
- **AM-LO-dipine tab 5 mg เม็ด** 21 pt (2 เม็ด * 1 PC เม็ด)
- **metformin tab 500 mg เม็ด** 12 pt (1 เม็ด * 2 PC เม็ด)
- **Losartan tab 50 mg เม็ด** 21 pt (2 เม็ด * 1 PC เม็ด)
- **Glipizide tab 5 mg เม็ด** 22at (2 เม็ด * 2 AC)
- **Folic acid tab 5 mg เม็ด** 11 at (1 เม็ด * 1 AC เม็ด)
- **Fenofibrate 100 mg เม็ด** 12 pt (1 เม็ด * 2 PC เม็ด)

**Dx** : E119 NIDM Without complications

**Comments**

- **rx CKD Stage 3 (eGFR 48)**
Measuring Medication Adherence
1. Data were analysed by using R.

2. Multiple logistic regression was used to assess the associations between the predictors and non-adherence.
Results

* Overall, 70.4% were female.

* 94.3% of patients had any of the considered comorbidities.

* Glipizide plus metformin were the most commonly dispensed (in 52.2% of patients).

* 96.1% of patients were self management.
Prevalence of non-adherence

Percentage (%)

- Adherence: 35.2%
- Non-Adherence: 64.8%
<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>adj.OR</th>
<th>CI(95%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>2.68</td>
<td>1.10-6.48</td>
<td>0.029</td>
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<tr>
<td>Self Management</td>
<td>8.41</td>
<td>1.13-62.72</td>
<td>0.038</td>
</tr>
<tr>
<td>Combine + Insulin</td>
<td>7.16</td>
<td>1.35-38.13</td>
<td>0.021</td>
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<tr>
<td>2 time</td>
<td>4.44</td>
<td>1.51-13.06</td>
<td>0.007</td>
</tr>
<tr>
<td>3 time</td>
<td>13.8</td>
<td>3.19-59.78</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Tab/day</td>
<td>2.28</td>
<td>1.16-4.51</td>
<td>0.017</td>
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</tbody>
</table>
NCD CLINIC
Non-adherence rate

Non-adherence rate (%)

<table>
<thead>
<tr>
<th></th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>Adherence Rate (%)</td>
<td>64.8</td>
<td>0.87</td>
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</tbody>
</table>
Hospital admission

Hospitalization (%)

Pre  Post

11.3  0
Mean blood sugar

Mean BS (mg/dl)

<table>
<thead>
<tr>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>257.5</td>
<td>158.0</td>
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P-value < 0.001
Acknowledgements

Allah subhanahu wa ta’ala

* Witaya Swaddiwudhipong, MD

* All staff of Nongjik hospital
THANKS FOR

YOUR ATTENTION