Clinical inertia in DM management

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GLYCEMIC CONTROL (KDA, 2013) < 30%

HbA1c < 6.5%  29.5
HbA1c < 7.0%  50.6
**Time to intensify therapy**

<table>
<thead>
<tr>
<th>Hb\textsubscript{A1C}</th>
<th>≥ 7 %</th>
<th>≥ 7.5 %</th>
<th>≥ 8 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAD 1 + 1</td>
<td>&gt; 2.9 yr</td>
<td>&gt; 1.9 yr</td>
<td>&gt; 1.6 yr</td>
</tr>
<tr>
<td>OAD 2 + 1</td>
<td>&gt; 7.2 yr</td>
<td>&gt; 7.2 yr</td>
<td>&gt; 6.9 yr</td>
</tr>
<tr>
<td>OAD (1~3) + Insulin</td>
<td>&gt; 7.1 yr</td>
<td>&gt; 6.1 yr</td>
<td>&gt; 6.0 yr</td>
</tr>
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• Definition
• Etiology
• Evaluation
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Contents

- Definition

- Etiology

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Clinical inertia

- Failure of health care providers to initiate or intensify therapy when indicated. (by Phillips LS)
- The failure to initiate or advance therapy in a patient who is not at the evidence-based therapeutic goal.
- Failure to initiate or intensify therapy according to evidence-based guidelines.
- Failure to intensify treatment in patients with DM with suboptimal blood glucose control.
- Gaps in practice.
- Recognition of the problem but failure to act.

inertia

• the **resistance** of any physical object to any **change** in the state of motion, including changes to its **speed** and **direction**

• **iners**: *(latin)* idle, sluggish
Contents

- Etiology
Etiology of clinical inertia

• Provider factors
• Patient factors
• Organization factors
Providers’ factors

• Knowledge of & attitudes toward evidence-based guidelines

• Own clinical judgment & experience in relation with specific situations

• Awareness of patient attitudes, behaviors & preferences

• Ability to make the appropriate decision within a given clinical & organizational context
Provider’s causes in target achievement

- Uncertainty regarding the appropriate target in specific patient subgroups
- Lack of training in the treat-to-target approach
- Overestimation of adherence to guidelines

Goal setting pathology

- Thematic vagabonding
- Goal fixation

1997 American television film, directed by Jim Abrahams about a boy with severe epilepsy, unresponsive to medications with terrible side effects, Abrahams' own experience with his son Charlie.
Patient

- Adopting unhealthy lifestyle
- Failing to adhere to prescribed medication
- Fear of hypoglycemia & weight gain

* Health Illiteracy
Organization function

- Lack of sufficient time to address patient problems
- Lack of shared care organization between the specialist and primary care
- **Insurance system**
Contents

• Evaluation
Calculation of CI

- Dr. Okonofua’s, $\frac{h}{v} - \frac{c}{v}$

- $h$: the number of visits with an uncontrolled condition
- $c$: the number of visits in which a change was made
- $v$: the total number of visits.

ex) total 5 visits, 4 visits poor control, 2 visits Rx change

$\frac{4}{5} - \frac{2}{5} = 0.4 = 40\%$

Calculation of CI

• $h$: the number of visits with an uncontrolled condition

• $c$: the number of visits in which a change was made

\[
1 - \frac{c}{h}
\]

ex) total 5 visits, 4 visits poor control, 2 visits Rx change

\[
1 - \frac{2}{4} = 0.5 = 50\%
\]

<table>
<thead>
<tr>
<th>Evaluation variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variables</strong></td>
</tr>
<tr>
<td>Number of HbA$_{1C}$ values $\geq 7%$</td>
</tr>
<tr>
<td>Of these, how many had an intervention</td>
</tr>
<tr>
<td>Median days to intervention</td>
</tr>
<tr>
<td>Median time to goal HbA$_{1C}$</td>
</tr>
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Yam FK et al. Pharmacy Practice 2013;11(4):201-210
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• against Clinical inertia
4 key principles reducing CI

1. Communication between the providers & patients acting as a team.
2. Realistic shared goals
3. Individualizing
4. Incentivise good management

Strain WD et al. DRCP 2014;105:302-312
How can we avoid clinical inertia?

- Good guideline(s)
- Individualization
- Education: cognitive behavioral interventions
  - providers (include. students, residents), patients
- Self-management support
- Organizational improvement:
  - routine use of computerized or paper flowsheets
  - regular feedback (by peers or opinion leaders)
- Enhanced primary care—frequent office visits

Reach G. Diabetes & Metabolism 2014;40:241-245
Frequent office visits

- More opportunities to intensify care.
- The message that intensified care is important.
- More frequent assessment.
- Familiarity and trust.
- Frequent medication adjustments.

Contents

- True clinical inertia?
“The guidelines do not always specifically include evidence-based indicators, that they fail to reflect all aspects of care, and that they rarely refer to the newest treatment or management options as a result of lack of supporting evidence.”

True clinical inertia

Applicability of guidelines to specific groups
- patients with comorbidities
- younger or elderly patients
- patients on polypharmacy
- patients of lower socioeconomic status

Q. “Whether the decision to not initiate treatment under a specific circumstances should be labeled as clinical inertia…”

The reasoning processes underlying the decisions that clinicians make

Clinical inaction = True clinical inertia

(1) a recommendation exists
(2) Provider knows the recommendation
(3) Provider believes the recommendation applies to the patient
(4) Provider has the necessary resources to apply the recommendation

Provider does not apply the recommendation for a particular patient, even though the four aforementioned conditions are present.

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Clinical Inertia

“Recognition of the problem but failure to act.”

medical malpractice
against Clinical Inertia

• Be active and insistent about achieving and maintaining target values.
• Detect problems early and intervening promptly.

Phillips Pat. Medicine Today 2008; 9(9): 50-56
Clinical inertia in individualizing care for diabetes: Is there time to do more?

Time 2 do more

Strain WD et al. DRCP 2014;105:302-312
“Thank you.”