Therapeutic Inertia – the Industry Perspective

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Global Vice President
Medical Head, Diabetes
How Delays in Treatment Intensification Can Impact Long-Term Complications

Hypothetical representation of the natural history of the patients with diabetes who were recruited in the VADT. The upper yellow line represents the time course of A1c estimated on the basis of the average glucose profile described in the UKPDS. The blue line represents the time course of A1c in the VADT. The lower red line represents the ideal time course of glycemic control.

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Propective Micro-Learning Cloud to Evaluate Patient Adherence

Diverse patients with T2D new to insulin offered library of 56, 1-4 min web based micro-learning educational videos

- Partnership
  - Medtronic
  - Dukakis JH
  - Novo Nordisk
  - The Banting Borden Foundation

Patient activation increased after watching the videos

<table>
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<th>Change in 0.5 MM Score</th>
<th>CI 95%</th>
<th>P=0.001</th>
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PAI Patient activation measure. Mean change 0.17 on a 4-point scale 0 to 2.00, p<0.01 (compared to pre and post)

Attitudes toward insulin improved after watching the videos

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<th>Change in Attitude</th>
<th>CI 95%</th>
<th>P=0.03</th>
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Mean change in 0.22 on a 4-point scale 0 to 0.80, CI of 0.03 is 0.80, p<0.03 (compared to pre and post)

Therapeutic Inertia Research Survey: Patients Uncontrolled on OAD (in Collaboration with AACE)

3 in 5 patients with T2DM indicate they are willing to do more to achieve their A1c target quicker

1 in 5 HCPs believe their patients are willing to do more to achieve their A1c target quicker

- 57% of adults living with T2DM would be willing to make multiple medication changes
- 52% of adults living with T2DM would be willing to visit their HCP more often

- 19% of HCPs polled who believe patients would be willing to do so
- 16% of HCPs who think patients would be willing to make these changes

Adults living with T2DM who have not achieved their A1c target report NEGATIVE EFFECTS ON THEIR:

- 70% emotional well-being
- 64% appetite
- 49% fatigue
- 42% sex

- 22% discontinued their diabetes medication
- 38% of those patients did so because they were not reaching their A1c target quickly enough
Therapeutic Inertia Research Survey: Patients Uncontrolled on BI

Top 3 treatment priorities in patients:
1) long-term A1c goal
2) staying healthy
3) avoiding weight gain

Top 3 treatment priorities in HCPs:
1) avoiding side effects
2) Affordability
3) long-term A1c goal

- 61% of patients REPORT FRUSTRATION not reaching their A1c goal vs 36% of their patients do
- 37% of patients "VERY WILLING" TO DO MORE to reach A1c goals faster vs 16% of their patients
- 17% of patients EXPECTING NO NEW NG10 in 12 months or less after basal vs 68% of HCPs
- 50% of patients SELECTED COST/COVERAGE as a reason for discontinuing basal insulin vs 75% of HCPs

Identification of Triggers for Therapeutic Switch

IBM Explorys Database

Optum Humedica Database

Patients reaching glycemic control

Estimated conditional probability of

Time on therapy (months)

Optum US Data on file; Optum Database 2018 thru Q3

Patient Support Program: COACH

Patient Attrition
Of 4,952 patients participating in COACH and 968,758 patients identified from the IDW, the final matched cohorts contained 544 patients each.

Persistence and Adherence
Number of Persistent Days During 12 Months of Follow-up

ONDUO Virtual Diabetes Clinic: Helping People with Diabetes Live Their Very Best Lives

Collaborating with Verily and Google

The importance of human connections

U.S. pilot launched January Q1 2018
- Personalized Solutions
- More frequent contact and support
- Access to specialty care from anywhere
ONDUO Virtual Diabetes Clinic: Encouraging Behavioral Change

- Discovery & experimental framework
- Daily motivation & reminders related to active goals
- Coach inspiration & nudges for reflection
- Celebrating success

Request to other Stakeholders

- Synergy - the whole will be greater than the simple sum of its parts
- Awareness - applied science
- Understanding - highly regulated environment
- Partnerships - large databases, various methodologies and Global outreach
THANK YOU