## James L. Holly, M.D.

## AMA Pre-Diabetes Program with CDC and ADA – Karen Kmetik

January 22, 2016

Ms. Karen Kmetik American Medical Association

Karen, I am glad that I dialed the wrong number yesterday and spoke with you. Thank you for the very exciting collaboration between the AMA, CDC, ADA and the Ad Council regarding Pre-Diabetes. SETMA has worked with each of the organizations except the AD Council. As you know, SETMA has just completed our seventh year of public reporting by provider name on 300 quality metrics, many of which are from the AMA's PCPI (see: <u>Public Reporting - Reporting by Type</u>). Since 2003, SETMA has maintained ADA recognition of our Diabetes Self Management Education Program and our Medical Nutrition Therapy program. And, we have worked with the CDC for HIV Screening and with their influenza-like illness network (see: <u>Your Life Your Health - Certificate of Appreciation: Centers for Disease Control</u>).

## **Pre-Diabetes**

Sixteen years ago, SETMA designed and deployed a robust Diabetes Center of Excellence with a Diabetes Disease Management Tool (see <u>EPM Tools - Diabetes</u>). Very shortly after deploying that tool in 2000, we realized that "The best way to treat diabetes is not to get it." This led us to begin both a diabetes screening program and an aggressive treatment of pre-diabetes. The following are parts of SETMA's Pre-Diabetes and Diabetes Prevention Program:

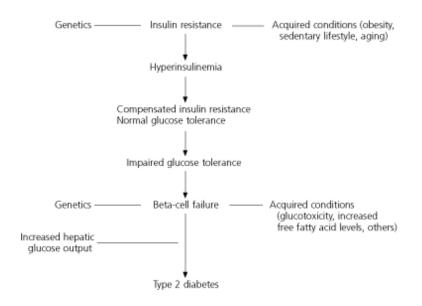
- LESS Initiative Lose Weight, Exercise Stop Smoking, which includes a diabetes screening program the complete tutorial for this program can be found at <u>EPM Tools LESS Initiative</u> <u>Tutorial</u>. AHRQ has published this on their Innovation Exchange.
- **Preventing Diabetes** which is the heart of our pre-diabetes program. We are aggressive about using the following ICD-10 codes: Pre-Diabetes (R73.09, Impaired Glucose intolerance (R73.02), Impaired Fasting Glucose (R7301) the complete tutorial for this program can be found at <u>EPM</u> <u>Tools Diabetes Prevention Tutorial</u>.
- **Preventing Hypertension** -- the complete tutorial for this program can be found at <u>EPM Tools -</u> <u>Hypertension Prevention Tutorial</u>.
- **Cardiometabolic Risk Syndrome** integral to this disease process is the progression from personal habits and genetic predisposition to full blown diabetes (see: <u>EPM Tools Cardiometabolic Risk</u> <u>Syndrome Suite of Templates Tutorial</u>). It was the ADA which promoted the change of this syndrome's name from "Metabolic Syndrome" (previously Syndrome X and Insulin Resistance Syndrome) to "Cardiometabolic Risk Syndrome". The natural history of the development of

diabetes from pre-diabetes is a part of our Cardiometabolic Risk Syndrome Disease Management Tool.

## **Progression to Type 2 Diabetes**

The progression from normal glucose tolerance to type 2 diabetes is characterized by dual defects that include insulin resistance and an insulin secretory defect caused by beta-cell dysfunction (Figure 1). Insulin resistance is characterized by decreased tissue sensitivity to insulin and marked compensatory hyperinsulinemia. Initially, plasma glucose levels are maintained in the normal range. In patients who will eventually develop diabetes, there is a decline in beta-cell secretory capacity.

The first glucose abnormality that is detected is a rise in the postprandial glucose levels because of reduced first-phase insulin secretion. With time, further decline in beta-cell function leads to elevation of the fasting glucose levels. Eventually, diabetes occurs, with more insulin secretory loss.



The following is a brief introduction to our work in this area. This is the master template to the LESS Initiative which is completed on all patients who come to SETMA. It includes the Elements of Preventing Diabetes which are also the Risk Factors for Developing Diabetes. This information is auto populated and takes a second to complete.

Last Updated 01/20/2015 SI	ETMA's LESS	Initiative		
10-15% decrease in weig The bad news is that more peo the good news is that a person	ht, even if a person is obe ple are at greater risk of d can help decrease their ri	higher risk for developing diabetes, but ese, decreases that risk significantly. eveloping diabetes than think they are, but isk without attaining their ideal body weight. u at a higher risk for developing Diabetes.		Return Document
Limitations Weight Manageme		ntly reduce your risk of developing Diabetes.	Pre Pre	ormation eventing Diabetes e-diabetes TMA's LESS Program
Elements of Preventing Diabetes 1. Family History Family History of Type II Diabetes? Family History of Hypertension? Family History of Hyperlipidemia? 2. Is the patient overweight or obese? 28.37 BMI 38.9 Body Fat % Is the adiposity in the abdominal area,	<ul> <li>Yes ○ No</li> <li>Yes ○ No</li> <li>Yes ○ No</li> <li>Yes ○ No</li> </ul>	4. Is the patient's BP elevated? (> 130/80 mmHg) 125 / 65 mmHg 5. Are the patient's lipids abnormal? • HDL 41 Triglycerides 77	Yes 🖲 No Dia	ibetic Risk Factors
as indicated by the waist circumference (Males > 38" or Females > 35") 40.00 inches 3. Did the patient have a low birth weight? (< 5 lbs 5 oz)	?	Cholesterol 111 6. Non-Caucasian Race?	Yes • No	
Ibs     0Z       Calculate Conclusion	the first sector is the first first sector was	eling to help you stay on track towards healt		

The following Preventing Diabetes template is looks busy but all data is auto populated. The information can be printed for provider or patient and includes "Predicting Diabetes," "Screening Insulin Resistance," Definitions of Impaired Fasting Glucose and Impaired Glucose tolerance," "Reducing Your Risk of Diabetes," etc. Down the right side of this template there are multiple teaching tools including "What is Pre-Diabetes?," "What to do about it," and many more.

Screening Recommendatio Could You Have Diabe	Contraction of the second second second	and the second second second	reening Insulin Res Reducing Your Risk	THE OWNER AND	IFG and IGT lisk of Develop		<u>it Strategies</u> ietes	Document
Patients with prediabetes have an atherogenic pattern of CV risk factors which are predominantly observed in Diabetes		Fasting Test			Casual Test		Patient Information What is Pre-Diabetes?	
		Diabetes	> 1	> 126 mg/dL		> 200 mg/dL		Carb Confusion
		Pre-Diabetes	100	100 - 125 mg/dL		140 - 199 mg/dL		What To Do About It Taking Steps To Prevent
		None	None < 100 mg/dL			< 140 m	g/dL	
Vital Signa Vital Sig	ns				Chook fo	r Now I	aba	You Have The Power More Than 50 Ways To Preve
			Fasting Lab Res			for New Labs		Importance of Glycemic Inde
Time Ht In Wt Lb Bi	MI		FPG		Cholesterol	111	04/08/2015	Applying the Glycemic Index
	Body	Fat 38.9	09/1	8/2013	HDL	41	04/08/2015	Glycemic Load
	BMR		2-Hr OGTT		LDL	55	04/08/2015	Insulin - Friend or Foe Hyperinsulinemia
Protein		Req			Triglycerides	77	04/08/2015	Hunger, Insulin, and Meals
Time BP Cuff Size	e Waist	40.00	DM Prediction R	ule	Magnesium		11	Hunger, Fat, and Fav Foods
Hips		38.00		1 > 4 doubles				Print All
		1.05	the risk of DM					Provider Information
	T LLIO		Diagnostic/Refe	ral Order				Glycemic Index and Preventio
reatment			Status	Priorit				Weight Loss
		obtained	Routin				Physical Activity	
Insulin Resistance	Homocy		completed	Immed		EGD		Behavior Modifications
Impaired Fasting Glucose	hsC	-						Summary of Studies
Hypertriglyceridemia	Endothelial D					Lifestyle and Diabetes		
inks						Orde	er Management	Visceral Fat Insulin Resistance Summary

Your announcement included the following:

"We invite you to partner with us to raise awareness of pre-diabetes and this special Ad Council campaign. The partner toolkit below provides you with access to a variety of materials to help, including pre-packaged content and language that you can leverage via your existing channels or any new opportunities that may be a good fit. "

SETMA will continue our program and we will review your materials. As you know, for the past 20 years, I have written a weekly heath column for a local newspaper (see <u>Your Life Your Health - View</u> <u>All Articles</u>) and I will include information about your program in my column. A search of our website shows over thirty Your Life Your Health articles on pre-diabetes dating back to 2002. The following are links to several of these:

- Your Life Your Health Prevention of and the Screening for Diabetes Part 2: Diabetes Prevention <u>Program at SETMA</u>
- Your Life Your Health Cardiometabolic Risk Syndrome Part III: Pre-Diabetes
- Your Life Your Health Prevention of and the Screening for Diabetes Part I: Insulin Resistance
- Your Life Your Health Hypertension: Part I Insulin Resistance and Oxidative Stress

Look forward to working with you in whatever way is helpful.

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