## **Ronald Krall, MD**

Senior Vice President and Chief Medical Officer



# **Ongoing Long Term Studies**



### **Rosiglitazone in Ongoing CV Outcomes Studies**

#### ACCORD (NHLBI-sponsored):

- 10,251 patients T2DM; ~2000 RSG-treated
- Primary Endpoint: MACE (non-fatal MI, non-fatal stroke, CV death)

#### **BARI – 2D (NHLBI-sponsored)**

- 2300 patients T2DM with CAD; ~700 RSG-treated
- Primary Endpoint: All cause mortality

#### VADT (VA-sponsored)

- 1792 subjects T2DM; ~1100 RSG-treated
- Primary Endpoints: Composite of MI, CV death, CVA, CHF, PCI, amputation, limb ischemia



## **GSK-Sponsored Studies**

#### APPROACH

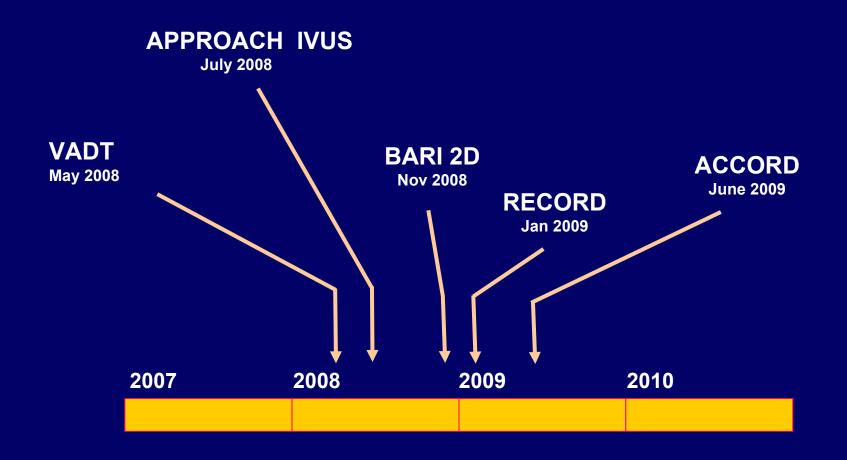
- 672 patients T2DM; 336 RSG-treated
- Primary Endpoints: Change in atheroma volume by quantitative IVUS

#### RECORD

- 4400 patients T2DM; ~2200 RSG-treated
- Study continues unaltered

# **CV Outcome Studies – Timelines\***

Approximately an additional 22,000 patient years, 550 MACE endpoints



\* Dates are LPLV

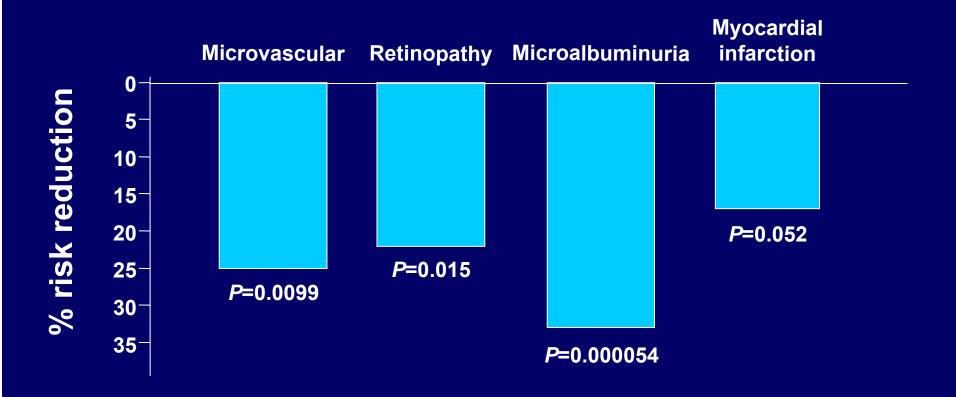


# **Questions for Today**

- Is there an increase in the risk of cardiovascular mortality associated with rosiglitazone?
- Is there an increase in the risk of myocardial infarction associated with rosiglitazone?



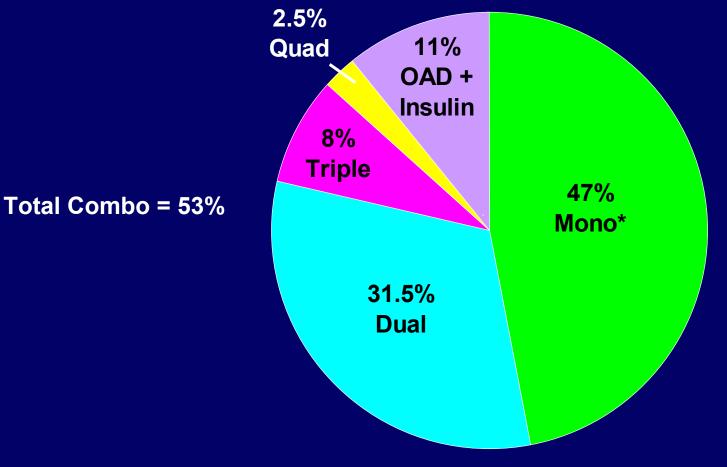
## Benefits of Glycemic Control over 10-12 years





## 53% of Type 2 Diabetic Patients Are on Combination Therapy

Regimens by Therapy Type

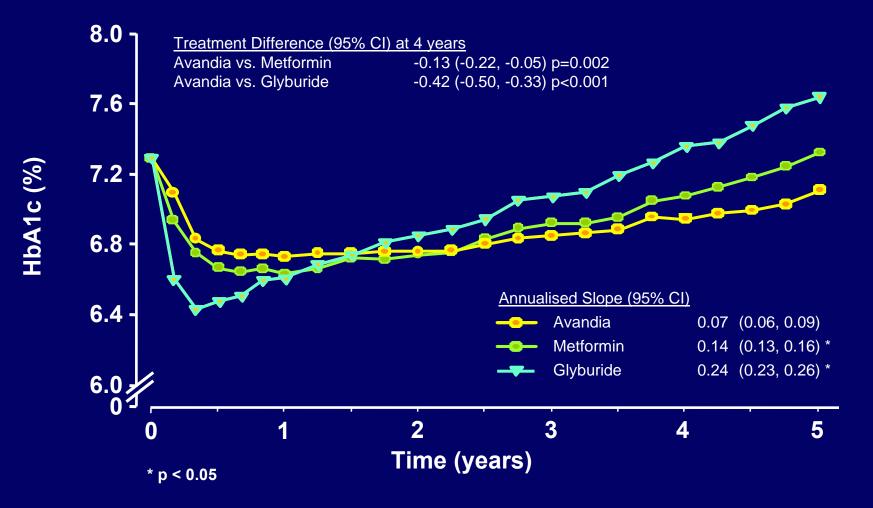


\*Monotherapy includes Insulin alone

Source: Verispan Patient Level Data. Feb 2007 Regimen Report

### **ADOPT:**

#### **Sustained Reductions in HbA1c vs Metformin or Glyburide**



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### **Considerations in the Choice of an Oral Agent**

Drug Class	Route of Administration	Expected HbA1c Reduction (Monotherapy)	Side Effects	
Sulfonylureas (SUs)	Oral	1.5%	Hypoglycemia, weight gain, probable cardiac ischemic risk with certain SUs	
Biguanide/Metformin	Oral	1.5%	Rare lactic acidosis, contraindicated in patients with renal impairment	
Alpha-glucosidase inhibitors	Oral	0.5 to 0.8%	GI side effects	
TZDs/PPAR agonists	Oral	0.5 to 1.5%	Anemia, weight gain, edema, heart failure, cardiac ischemic risk; potential cancer risk (bladder cancer signal with pioglitazone)	
DPPIV-inhibitors**	Oral	0.5 to 0.9%	Limited clinical experience; nonclinical safety signals for many in development	

## **Recommendations**



David M. Cocchetto, PhD US Regulatory Affairs GlaxoSmithKline



## **External Experts**

Gary Koch, PhD University of North Carolina at Chapel Hill

Peter Kowey, MD Jefferson Medical College and Lankenau Hospital

Milton Packer, MD University of Texas Southwestern Medical School

Alexander Walker, MD, DrPH i3 Drug Safety and Harvard School of Public Health



**Clarifying Questions from the Committee** 



# Distribution of MI SAEs in ADOPT Across Tertiles of Change in LDL at 6 Months

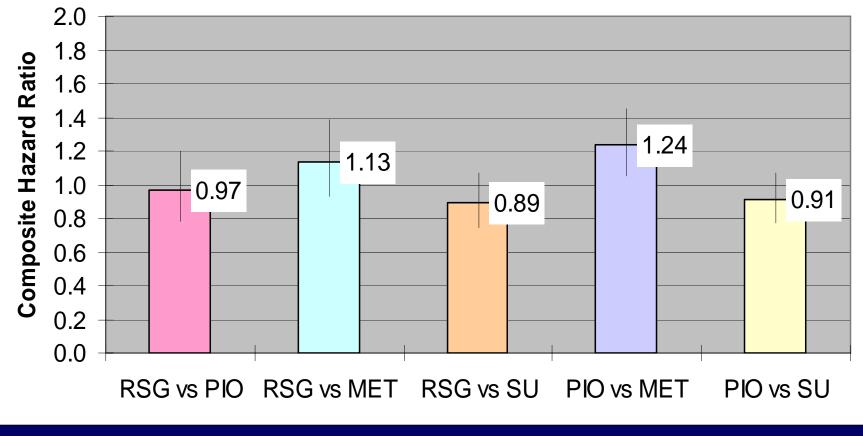
Tertile	Low	Middle	High
RSG N = 1456 Total w/MI = 24*	7 (2.0)	6 (1.6)	8 (2.1)
Metformin N = 1454 Total w/MI = 20*	9 (2.4)	4 (1.0)	2 (0.5)
GLY/GLIB N = 1441 Total w/MI = 14*	4 (1.1)	2 (0.5)	3 (0.8)

\* 3(RSG), 5 (Met) and 5(GLY) had an MI and are missing an LDL value or the MI occurred prior to month 6

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## Hazard Ratios for Combined Outcome: Pharmetrics Report

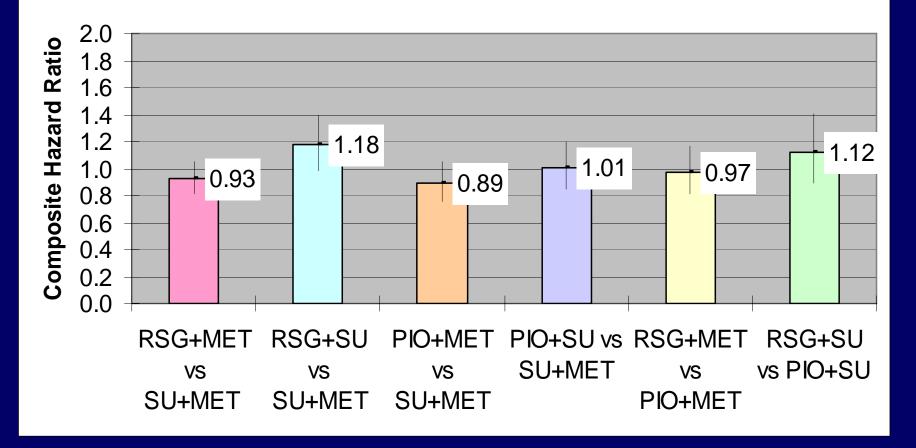
**Monotherapy Cohorts: Pharmetrics** 



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## Hazard Ratios for Combined Outcome: Pharmetrics Report (Cont)

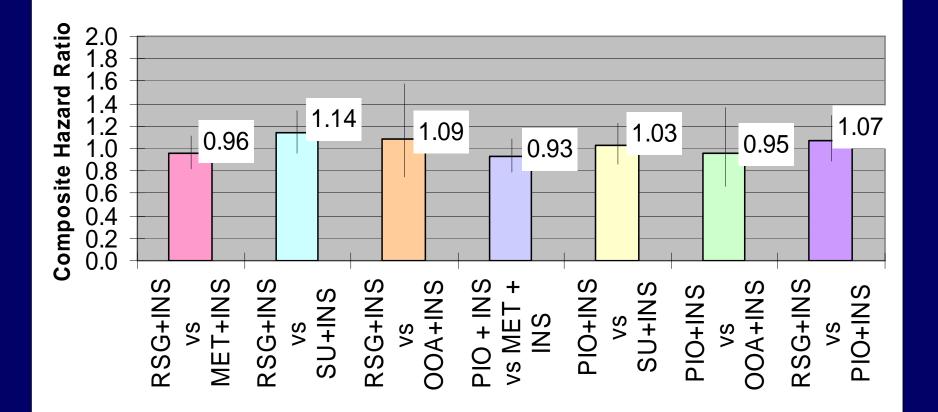
**Dual Therapy Cohorts: Pharmetrics** 



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# Hazard Ratios for Combined Outcome: Pharmetrics Report (Cont)

**Combination with Insulin Cohorts: Pharmetrics** 



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