IMMEDIATE RELEASE

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ADVERA HEALTH ANALYTICS TO RELEASE ANALYSIS OF POST-MARKETING ADVERSE DRUG REACTIONS REGARDING TYPE 2 DIABETES MEDICATIONS AT ASHP 2015

Featured Side Effects for GLP-1 (AstraZeneca), DPP-4 (Takeda), and SGLT2 (AstraZeneca)

NEW ORLEANS, LA…December 7, 2015 – Advera Health Analytics, Inc. will present their comparison Type 2 Diabetes Study titled "**Comparisons and Cost Analysis of Post-Marketing Adverse Drug Reactions for GLP-1, DPP-4, and SGLT2 Type 2 Diabetes Medications"** at the American Society of Health-Systems Pharmacists (ASHP) 2015 in New Orleans on December 6.

Type 2 diabetes increases risk for serious coronary, kidney, nerve, and other complications in over 200 million people. Adverse events (AEs) associated with drugs intended to treat diabetes are important to quantify and understand because strict medication adherence is needed to reduce the complications listed above. The results of Advera Health's analysis showed interesting safety and cost differences both within- and across diabetes medication classes:

> ***Elevated reporting rates for pancreatitis, hypoglycemia, and diabetic ketoacidosis add to suspicions of class-wide side effect issues, especially for DPP-4 drugs.***
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> ***While all drug classes had members with elevated reporting for diabetic ketoacidosis, the SGLT2 inhibitors had much higher RORs than the other two classes with a 38.36 for canagliflozin and a 34.15 for dapagliflozin.***

The top 3 highest downstream costs did not show any class-specificity as they were associated with exenatide (Byetta - AstraZeneca) (GLP-1) $21.05 per prescription, dapagliflozin (Farxiga – AstraZeneca) (SGLT2) $18.71, and alogliptin (Nesina – Takeda) (DPP-4) $13.97.

Methodology: 99,195 post-marketing "primary suspect" FAERS case reports were analyzed. Duplicate cases were removed. Part one of the study used the Reporting Odds Ratio (ROR) to measure disproportional reporting rates across numerous AEs that represent significant safety issues and can affect medication adherence. Part two of the study estimated the downstream medical costs associated with post-marketing AEs and poor patient outcomes for each drug by: 1) obtaining all FAERS reports for each drug from 2010-2015, 2) mapping ICD-9 codes and AHRQ-derived survey costs to MedDRA outcome and AE terms, and 3) using drug usage data to calculate downstream costs per prescription.

These analyses only included “Important Medical Events” (defined by EudraVigilance). Additionally, only the highest individual AE or poor patient outcome cost was used for each report.
Substantial costs are associated with AEs and they represent a significant burden on the healthcare system. Improved analysis of post-marketing AEs combined with the quantification of downstream AE and outcome costs provide an improved method for assessing real-world safety and financial impact.

ABOUT ADVERA HEALTH ANALYTICS

Advera Health Analytics is a health informatics company that improves patient safety and reduces systemic healthcare costs through the comprehensive analysis of real world outcomes data. Advera Health Analytics makes these data accessible, actionable, and predictable. For more information visit adverahealth.com and connect with us on LinkedIn, Twitter and Facebook.