Incidence Rate of Emergency Department Visits for Hypoglycemia by Diabetes Drug Regimen in a Four Million Member Commercially Insured Population

Background
Hypoglycemia (HG) is a serious adverse event associated with diabetes mellitus (DM) drug therapy. The American Diabetes Association (ADA) has emphasized the importance of monitoring hypoglycemic events in diabetes management.

Methods
Among 4.0 million commercially insured members continuously enrolled from January 1, 2011 to June 30, 2015, the following were included:

- All emergency department visits with a DM or a secondary diagnosis code as all four diagnostic codes were identified using an algorithm validated by medical record review3
- All claims meeting diagnosis coding criteria for hypoglycemia
- IR = incidence rate; CI = confidence interval; Pt-yrs = patient years; Rx = prescription

- Hypoglycemia by Diabetes Drug Regimen in a Four Million Member Commercially Insured Population

Results
- The United States Food and Drug Administration (FDA) recently approved insulin degludec and insulin恶化reg at the time of the study period. Among members using only NIDAs those aged 35–44 had a lower incidence rate than those under 35 and those older than 45, but the rates were not statistically different. Among members using other insulin categories, those aged 25–34 had a lower incidence rate than those under 25, but the rates were not statistically different.

Conclusion
Hypoglycemia is a common adverse event of DM drug therapy. The incidence rate of ED visits for HG may not always represent severe HG events among members using other insulin categories. The results of this study provide valuable information for healthcare providers and patients regarding the incidence of ED visits for HG among members using other insulin categories.

References

Table 1. Percentage of Study Members with Pharmacy Claims in the First Six Months of 2015 for Any Insulin or Only Non-insulin Diabetes Agents by Five Year Age Groups

Table 2. Number of HG Emergency Department Visits Per 100,000 Members by Six Month Intervals, January 2011 to June 2015

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