**Description of the Variables**

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| Variable: | Description: | Role | Level |
| A1Cresult | Indicates the range of the result or if the test was not taken. Values: “>8” if the result was greater than 8%, “>7” if the result was greater than 7% but less than 8%, “normal” if the result was less than 7%, and “none” if not measured. | Input | Categorical |
| admission\_source | Integer identifier corresponding to 21 distinct values, for example, physician referral, emergency room, and transfer from a hospital | Input | Categorical |
| admission\_type | Integer identifier corresponding to 9 distinct values, for example, emergency, urgent, elective, newborn, and not available | Input | Categorical |
| age | Grouped in 10-year intervals: [0, 10), [10, 20), . . ., [90, 100) | Input | Categorical |
| change | Indicates if there was a change in diabetic medications (either dosage or generic name). Values: “change” and “no change” | Input | Categorical |
| diabetesMed | Indicates if there was any diabetic medication prescribed. Values: “yes” and “no” | Input | Categorical |
| diag\_1 | The primary diagnosis (coded as first three digits of ICD9); 848 distinct values | Input | Categorical |
| diag\_2 | Secondary diagnosis (coded as first three digits of ICD9); 923 distinct values | Input | Categorical |
| diag\_3 | Additional secondary diagnosis (coded as first three digits of ICD9); 954 distinct values | Input | Categorical |
| discharge\_disposition | Integer identifier corresponding to 29 distinct values, for example, discharged to home, expired, and not available | Input | Categorical |
| gender | Values: male, female, and unknown/invalid | Input | Categorical |
| insulin | Medication. “up” if the dosage was increased, “down” if it was decreased, “steady” if it did not change, and “no” if the drug was not prescribed | Input | Categorical |
| max\_glu\_serum | Indicates the range of the result or if the test was not taken. Values: “>200,” “>300,” “normal,” and “none” if not measured | Input | Categorical |
| medical\_specialty | Integer identifier of a specialty of the admitting physician, corresponding to 84 distinct values, for example, cardiology, internal medicine, family\general practice, and surgeon | Input | Categorical |
| num\_lab\_procedures | Number of lab tests performed during the encounter | Input | Numeric |
| num\_medications | Number of distinct generic names administered during the encounter | Input | Numeric |
| num\_procedures | Number of procedures (other than lab tests) performed during the encounter | Input | Numeric |
| number\_diagnoses | Number of diagnoses entered to the system | Input | Numeric |
| number\_emergency | Number of emergency visits of the patient in the year preceding the encounter | Input | Numeric |
| number\_inpatient | Number of inpatient visits of the patient in the year preceding the encounter | Input | Numeric |
| number\_outpatient | Number of outpatient visits of the patient in the year preceding the encounter | Input | Numeric |
| payer\_code | Integer identifier corresponding to 23 distinct values, for example, Blue Cross\Blue Shield, Medicare, and self-pay | Input | Categorical |
| race | Values: Caucasian, Asian, African American, Hispanic, and other | Input | Categorical |
| readmitted | Readmission. 1 if the patient was readmitted in less than 30 days, 0 otherwise. | Target | Binary |
| time\_in\_hospital | Integer number of days between admission and discharge | Input | Numeric |