IMPAIRED RISK
REFERENCES
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Underwriting Diabetes

THE CASE STUDY FOR THIS MONTH

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A 60 year old man is looking for an OPTerm 10 policy with a $500,000 specified amount. He was diagnosed with diabetes 10 years ago. His HbA1c (see below) is 8.0. He is taking insulin and a baby aspirin daily. He exercises regularly and there have been no recognizable complications. The electrocardiogram and urinalysis show no abnormalities.

Diabetes presently occurs in 6.6% of the general population with a higher occurrence rate in the older age groups. Almost 20% of the population over the age of 70 has some form of diabetes. This medical condition is increasing at an alarming rate with speculations that occurrences will double in prevalence in the next 25 years. It is commonly encountered in underwriting and is a complex matter to underwrite.

Diabetes is defined by a deficiency of insulin, a hormone produced by the pancreas, that resides in the blood. Insulin allows sugar (glucose) to enter the cells of the body to be converted into the energy needed for daily life. When insulin exists in too small amounts, sugar is not absorbed into the cells. Instead, sugar stays in the blood and accumulates there in dangerously high amounts. This high blood sugar causes harm.

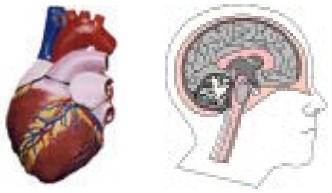
High blood sugar harms the arteries, kidneys, eyes and nerve endings. It makes infections more severe. Blood vessels can be damaged by high blood sugar which decreases blood flow through the body sometimes resulting in amputation of extremities. Diabetes can affect almost every system in the body.

Diabetes is the single worst coronary artery risk factor. Heart attacks are two to four times more common in diabetics than in non-diabetics and often occur at younger ages. When diabetes is associated with other coronary risk factors, (smoking, high blood pressure, etc.) the risk of disease of the arteries increases greatly. To improve the chances the arteries will not be damaged, diabetics need to keep their blood pressure below 135/85, their cholesterol below 200, stop smoking, exercise regularly, and of course, normalize their blood sugar if possible.

The higher the levels of blood sugar, the worse the risk of diseases of the blood vessels and other systems. The hemoglobin A1c (HbA1c) test measures the average blood sugar during the previous six to eight week period. A normal level is 6.0 or lower and correlates with a blood sugar of 130 or less. A level of 8.0 correlates with a blood sugar level of 180. The longer diabetes exists without treatment, monitoring, and a healthy lifestyle, the higher the risk of severe damage to the body.

Diabetics are treated by many methods with the ultimate goal of normalizing blood sugar levels as much as possible. Diet, exercise, medication and insulin shots are often used in tandem to lower blood sugar. In assessing underwriting risk of an insurance applicant, the method of treatment is not as important as how effectively the treatment method normalizes blood sugar levels.

Health Risks Caused by High Blood Sugar



Heart Attack Stroke

Certain medications have been shown to improve mortality in diabetics who have a high risk of coronary artery disease. Aspirin is one of the potentially beneficial medications. A baby aspirin taken every day, by those for whom it is safe to do so, can help keep the arteries from closing by inhibiting the platelets in the blood that contribute to this process. Other prescription medications and vitamins can decrease risk factors, so knowing all the medications taken can aid in the underwriting process.

The future of diabetes is encouraging because of extensive research. Genetic engineering could enable other cells in the body, along with the pancreas, to produce insulin. Work with stem cells may allow these cells to be implanted and produce insulin. Medications have improved and different ways to administer insulin have been developed. The goal is to make the blood sugar stay within a normal range and repair the damage that may have already occurred.

The case study presented is most likely assessed at a Table 2 risk in the standard plus class. Since the blood sugar level has averaged 180 the last 6-8 weeks giving the HbA1c of 8.0, it is clear that the conditions have not been adequately controlled. In addition, presence of the diabetes for ten years does not allow a favorable view of the potential damage. However, the level of risk is improved by the baby aspirin and exercise program.