BLOOD IN THE URINE (HEMATURIA)

Overview:

Hematuria is a condition in which red blood cells are found in the urine. Hematuria can be caused by blood entering the urine at any point along the urinary tract, from the areas of urine formation in the kidneys all the way to the urethral opening. Thus, almost any disorder of the urinary tract can lead to the finding of blood in the urine, and the presence of blood does not by itself indicate any cause.

A variety of infections, such as *cystitis, urethritis*, and *pyelonephritis* (inflammation of the kidney), are common causes for findings of blood in the urine. Inflammation of the prostate, or *protstatitis*, often causes hematuria in men. Cysts, tumors, or stones of either the kidney or bladder can also lead to findings of blood in the urine. *Glomerulonephritis*, in which the glomeruli (filtering units of the kidney) become inflamed, can also lead to hematuria. Certain *bleeding disorders* are also responsible for this symptom.

As minute traces of blood in the urine are not normally visible to the unaided eye, many proposed insureds are surprised to be advised of a finding of blood in their urine. It is not uncommon that a first discovery is made during a urine study requested for an insurance exam. The blood is typically detected via microscopic study or with use of a dip stick.

If the level of blood in the urine is clinically significant in amount or duration, it may become necessary to undergo various procedures to determine the cause for the condition, given the wide variety of possible causes. It may be necessary to obtain images of the urinary tract by ultrasound scanning, CT scanning, or via intravenous pyelography. These tests often detect conditions such as cysts, stones, or tumors. If bladder disease is thought to be the cause of the hematuria, a cystoscopy procedure is often performed. This is a direct examination of the bladder through a viewing tube passed all the way from the urethral opening to the bladder. If a kidney tumor cannot be ruled out, an angiography may be performed to study the blood vessels of the kidneys.

Impact on Life Underwriting:

The urine of healthy individuals does not normally contain any blood. However, *very small* amounts of blood may indicate a mild temporary inflammation of the urinary tract. In the absence of known disease, minute traces of blood in the urine are typically disregarded. A positive finding above certain minute trace levels, typically more than 10 red blood cells per high power field, will generate requests for two additional urine specimen taken on different days. Should both these additional specimen come back without any additional findings of blood in the urine, underwriting offers can be preferred. This is especially true for females where menstrual contamination may have been the culprit behind the initial finding.

Should one or both of the subsequent tests show the continued presence of blood, especially larger amounts with more than 10 red blood cells per high power field, underwriters are likely to make a rated offer or even postpone an offer pending further investigation as to the cause of these findings. The course of underwriting action following a finding of blood in the urine depends on many variables, including related laboratory studies routinely performed as part of an insurance company exam. Abnormal *kidney function tests (KFTs)* and especially evidence of protein in the urine, a condition referred to as *proteinuria*, will lead to concern about possible kidney disease. In the presence of such findings, or for individuals with diagnosed disease, underwriters will rate for cause, meaning they will base their underwriting decision on the morbidity and mortality experience related to the specific condition identified in the proposed insured. In the absence of any further findings or abnormal studies, the table below will give some indication of likely ratings for findings of hematuria. SB 04/25/2001

Average number of red blood cells found per High Power Field:	**Approximate underwriting guidelines:**
1 - 10	Standard
11 - 30	Standard to Table 2
31 - 50	Table 2 to Table 3
51 +	Table 3 to Uninsurable