



UM-CDG-090 Serum Magnesium

Approved By:
Director, Health Services

Effective Date:
10/20/2025

This Policy applies to all SECUR affiliates, associates, and subsidiaries.

Approved by Courtney Gonzales, Director of Health Services on behalf of the Utilization Management Committee.

PURPOSE

This coverage determination guideline serves to address serum magnesium. Magnesium is a mineral required by the body for the use of adenosine triphosphate (ATP) as a source of energy. It is also necessary for neuromuscular irritability and blood clotting. Magnesium deficiency produces neuromuscular disorders. It may cause weakness, tremors, tetany, and convulsions. Hypomagnesemia is associated with hypocalcemia, hypokalemia, long-term hyperalimentation, intravenous therapy, diabetes mellitus (especially during treatment of ketoacidosis); alcoholism and other types of malnutrition; malabsorption; hyperparathyroidism; dialysis; pregnancy; and hyperaldosteronism. The other conditions that may cause magnesium deficiencies include renal loss of magnesium with cis-platinum therapy, amphotericin or anti-EGFR toxicity, and cardiac arrhythmias.

For SECUR Health Plan members, National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) will be applied to requests when applicable. SECUR Health Plan Coverage Determination Guidelines (CDG) will be utilized in the absence of an appropriate NCD and/or LCD.

DEFINITIONS

None

POLICY

SECUR Health Plan recognizes the following as medically necessary indications:

Utilization of certain cardiac drugs which cause adverse effects in the presence of low magnesium (i.e., quinidine, procainamide, and disopyramide phosphate or Norpace). Members taking these drugs should have their magnesium checked approximately once every six months.

- Long term parenteral nutrition. Members on long term parenteral nutrition that are otherwise asymptomatic should have their serum magnesium checked monthly.
- Malabsorption syndrome. The frequency should depend on the severity of the syndrome, but once the member's level is stabilized, a monthly check should be adequate.
- Renal loss secondary to diuretic use.
- Chronic alcoholism, diabetic acidosis, and renal tubular acidosis. These members should be followed on an as needed basis according to their symptomatology. Without symptoms, they should be checked no more than annually.

- Chronic diarrhea, otherwise unexplained and persistent.
- Prolonged nasogastric suction greater than five days. These members should have a magnesium check every two to three weeks.
- Cisplatin treatment.
- Amphotericin treatment
- EGFR monoclonal antibodies
- Members receiving IV magnesium therapy for a low serum level. Serum level should be monitored appropriately.
- Members with hypocalcemia. If the hypocalcemia persists, the level should probably be checked on a six-month basis as long as the member does not have symptoms of arrhythmias that would warrant closer follow up.
- Lethargy and confusion that are not otherwise explained. Once a member has been diagnosed with mental health processes such as Alzheimer or psychotic depression, etc., there is no indication to follow their magnesium level on a regular basis.
- Members receiving oral magnesium in the face of impaired renal function should have their magnesium level checked on a monthly basis.

Other clinical situations:

- Pre-eclampsia
- Unexplained muscular paralysis
- Neuromuscular irritability
- Blood clotting abnormalities
- Evidence (mixed) that magnesium levels are low and increased magnesium may benefit members with sickle cell anemia, beta thalassemia and hypersplenism– more recent articles dispute this.
- Long Q-T syndrome, torsades de pointes and ventricular arrhythmias.

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