Serum Phosphorus

CPT: 84100

CMS Policy for Florida, Puerto Rico, and U.S. Virgin Islands

Local policies are determined by the performing test location. This is determined by the state in which your performing laboratory resides and where your testing is commonly performed.

Medically Supportive ICD Codes are listed on subsequent page(s) of this document.

Coverage Indications, Limitations, and/or Medical Necessity

Phosphorus levels are determined by calcium metabolism, parathyroid hormone, and to a lesser degree by intestinal absorption. Normal serum phosphorus is 2.5-4.5mg/dl. Serum phosphate levels help to detect endocrine, skeletal, and calcium disorders, and aid in the diagnosis of renal disorders and acid-base imbalance.

Indications

Serum phosphorus testing will be considered medically reasonable and necessary under either of the two following circumstances:

1. **Evaluation of patients with signs and symptoms of hypophosphatemia**.
   Patients with mild hypophosphatemia usually have no clinical manifestations. Clinical findings below usually occur when the phosphate deficit is severe: anorexia, nausea, muscle weakness and soreness, bone pain, apprehension, confusion, paresthesias, mental obtundation, hypercaliuria, osteomalacia, rhabdomyolysis, encephalopathy, seizures, hemolysis, platelet dysfunction, thrombocytopenia.
   Conditions in which serum phosphorus testing may be medically reasonable and necessary include, but are not limited to, the following which are related to hypophosphatemia:
   - **Decreased phosphate ingestion or absorption**: Malnutrition: alcoholism, starvation, Vitamin D deficiency, Malabsorption syndromes, Hyperalimentation without phosphate supplements
   - **Increased utilization or consequence of metabolism**: Pregnancy, Recovery from malnutrition or diabetic ketoacidosis: insulin and glucose therapy, Respiratory alkalosis: salicylate poisoning, gram-negative bacteremia, Lactate, sodium bicarbonate, or sodium chloride infusions, Absorption by bone following parathyroiectomy
   - **Excess losses of phosphate**: Dialysis, Diuretic therapy, Primary hyperparathyroidism, Renal tubular defects: congenital, after renal transplant, toxic, and diuretic phase following acute , renal failure or burns, Oral antacid therapy, Hypomagnesemia
2. **Evaluation of patients with hyperphosphatemia**.
   Patients with hyperphosphatemia usually have no clinical symptoms per se. Symptoms may arise, however, from underlying conditions. Some signs of hyperphosphatemia can include, but are not limited to, the following: serum phosphorus level greater than 4.5mg/dl on two fasting blood levels, skeletal lesions on x-ray, elevation of serum creatinine and alkaline phosphatase.
   Conditions in which serum phosphate testing may be medically reasonable and necessary include, but are not limited to, the following which are related to hyperphosphatemia:
   - **Excess phosphate from exogenous sources**: Ingestion of dairy products, Ingestion of phosphate salts or use of phosphate enemas in patients with renal disease, Hpervitaminosis D, Sarcoidosis
   - **Excess phosphate from endogenous sources**: Metabolic or respiratory acidosis, Skeletal lesion, local: myeloma, Paget's disease, and metastic carcinoma, Skeletal lesion, diffuse: prolonged skeletal immobilization, severe hyperparathyroidism secondary , to renal disease, Phosphate release from tissue destruction or ischemia: irradiation or chemotherapy hemolysis, lactic, acidosis
   - **Impaired excretion of phosphate**: renal disease, hypoparathyroidism

Even though a patient has a condition stated above, it is not expected that a serum phosphorus test be performed frequently for stable chronic symptoms that are associated with that disease.

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Tests useful in the differential diagnosis include repeat serum phosphorus, alkaline phosphatase, calcium, parathyroid hormone, and skeletal x-ray.

In accordance with national Medicare coverage policy, *serum phosphate laboratory tests are routinely covered at a frequency of once per month for hemodialysis, intermittent peritoneal dialysis, continuous cycling peritoneal dialysis, and hemofiltration beneficiaries. Services performed at a greater frequency are covered if medically necessary and used in timely medical decision making*.

Utilization Guidelines

Routine serum phosphate laboratory tests are covered at a frequency of once per month for hemodialysis, intermittent peritoneal dialysis, continuous cycling peritoneal dialysis, and hemofiltration beneficiaries. These tests are included in the facility's composite rate and may not be billed separately to the Medicare program. Services performed at a greater frequency than specified are separately billable if medically necessary. A diagnosis of ESRD alone is not sufficient medical evidence to warrant coverage of additional tests.

It is expected that these services would be performed as indicated by current medical literature and/or standards of practice. When services are performed in excess of established parameters, they may be subject to review for medical necessity.

Medicare Local Coverage Determination Policy

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There is a frequency associated with this test. Please refer to the Limitations or Utilization Guidelines section on previous page(s).

The ICD10 codes listed below are the top diagnosis codes currently utilized by ordering physicians for the limited coverage test highlighted above that are also listed as medically supportive under Medicare's limited coverage policy. **If you are ordering this test for diagnostic reasons that are not covered under Medicare policy, an Advance Beneficiary Notice form is required.**
Note—Bolded diagnoses below have the highest utilization

Code	Description
E21.0	Primary hyperparathyroidism
E21.1	Secondary hyperparathyroidism, not elsewhere classified
E21.3	Hyperparathyroidism, unspecified
E55.9	**Vitamin D deficiency, unspecified**
E67.8	Other specified hyperalimentation
E83.30	Disorder of phosphorus metabolism, unspecified
E83.39	Other disorders of phosphorus metabolism
E83.42	Hypomagnesemia
E83.51	Hypocalcemia
E83.52	Hypercalcemia
E83.59	Other disorders of calcium metabolism
N17.9	Acute kidney failure, unspecified
N18.2	Chronic kidney disease, stage 2 (mild)
N18.4	**Chronic kidney disease, stage 4 (severe)**
N18.5	Chronic kidney disease, stage 5
N18.9	**Chronic kidney disease, unspecified**
N25.81	**Secondary hyperparathyroidism of renal origin**
R79.89	Other specified abnormal findings of blood chemistry
R79.9	Abnormal finding of blood chemistry, unspecified

Visit **QuestDiagnostics.com/MLCP** to view current limited coverage tests, reference guides, and policy information.

To view the complete policy and the full list of medically supportive codes, please refer to the CMS website reference www.cms.gov ▶

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