Gene Expression Profile Testing for Multiple Myeloma

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Definitions

Gene expression	The process of transcribing DNA into messenger RNA (mRNA) and subsequent translation into proteins.
Gene expression profile assay (GEP)	Examines gene patterns in a tissue sample for actively producing mRNA and protein production and simultaneously measures the cellular levels of mRNA of a large number of genes.
Microarray-based gene expression profile (MyPRS)	A proposed method used to evaluate and manage individuals with multiple myeloma by risk stratifying individuals with newly diagnosed and relapsed multiple myeloma to guide treatment decisions. The ability to measure and analyze thousands of genes simultaneously in a single RNA sample; also referred to as gene expression microarray (GEM).
Multiple myeloma	A systemic malignancy characterized by accumulation of antibody secreting plasma cells derived from B cells in the bone marrow, leading to destruction of bone and failure of the bone marrow. Clinical manifestations of the disease include lytic bone lesions, hypercalcemia, anemia, immunodeficiency and renal insufficiency/failure.

Related Medical Guidelines

Genetic Counseling and Testing
Gene Expression Profiling

Guideline

Gene expression profile testing for multiple myeloma is considered investigational and not medically necessary for all indications, including:

1. Risk stratification in individuals with newly diagnosed multiple myeloma
2. Determination of prognosis in individuals with relapsed multiple myeloma

Applicable Procedure Codes

81479	Unlisted molecular pathology procedure
81599	Unlisted multianalyte assay with algorithmic analysis

References

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