



MASSACHUSETTS

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Medical Policy Insulin Potentiation Therapy

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Policy Number: 532

BCBSA Reference Number: 2.01.72A

Related Policies

- Insulin Delivery Devices, #[332](#)

Policy

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity Medicare HMO BlueSM and Medicare PPO BlueSM Members

Insulin potentiation therapy (IPT) is [INVESTIGATIONAL](#).

Prior Authorization Information

Pre-service approval is required for all inpatient services for all products.

See below for situations where prior authorization may be required or may not be required for outpatient services.

Yes indicates that prior authorization is required.

No indicates that prior authorization is not required.

N/A indicates that this service is primarily performed in an inpatient setting.

Outpatient

Commercial Managed Care (HMO and POS)	This is not a covered service.
Commercial PPO and Indemnity	This is not a covered service.
Medicare HMO BlueSM	This is not a covered service.
Medicare PPO BlueSM	This is not a covered service.

CPT Codes / HCPCS Codes / ICD-9 Codes

The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes

There is no specific CPT code for this service.

Description

Certain insulin like growth factor (IGF) receptors are found to be overexpressed in many forms of cancer; therefore, cancer cells may be selectively more sensitive than normal cells to exogenous insulin. Insulin is also believed to increase the permeability of cell membranes, leading to the increase in intracellular concentration and cytotoxic effect of anticancer drugs. Insulin potentiation therapy (IPT) uses insulin as an adjunctive agent to potentiate the effects of pharmacologic therapy and offer reduced chemotherapy dosing in the treatment of cancer in an effort to decrease pharmacologic side effects from standard dosing. It is considered alternative cancer therapy. Although it has been used since the 1930s, its effectiveness has not been established in pharmacokinetic profiles with insulin concurrently administered with chemotherapy, survivor efficacy studies, or clinical trials.

Summary

Much of the information about IPT comes from short-term anecdotal reports. A single randomized controlled trial suggested that tumor progression can be affected by IPT at 8 weeks. No survival or longer term data are available. Therefore, further studies are needed to demonstrate whether improvements in health outcomes occur with the use of IPT; the treatment is investigational.

Policy History

Date	Action
11/2011-4/2012	Medical policy ICD 10 remediation: Formatting, editing and coding updates. No changes to policy statements.
7/2011	Reviewed - Medical Policy Group – Hematology and Oncology. No changes to policy statements.
5/2011	Reviewed - Medical Policy Group - Pediatrics and Endocrinology. No changes to policy statements.
1/1/2011	New policy describing on-going non-coverage.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

1. American Cancer Society. Insulin Potentiation Therapy. Available online at: www.cancer.org/docroot/ETO/Content/ETO_5_3X_Insulin_Potentiation_Therapy.asp?sitearea=ETO. Last accessed September 2010.
2. Ayre SG, Garcia y Bellon DP, Garcia DP, Jr. Insulin, chemotherapy, and the mechanisms of malignancy: the design and the demise of cancer. *Med Hypotheses* 2000; 55(4):330-4.
3. Ayre SG, Perez Garcia y Bellon D, Perez Garcia D, Jr. Neoadjuvant low-dose chemotherapy with insulin in breast carcinomas. *Eur J Cancer* 1990; 26(11-12):1262-3.
4. Ayre SG, Perez Garcia y Bellon D, Perez Garcia D, Jr. Insulin potentiation therapy: a new concept in the management of chronic degenerative disease. *Med Hypotheses* 1986; 20(2):199-210.
5. Lasalvia-Prisco E, Cucchi S, Vazquez J et al. Insulin-induced enhancement of antitumoral response to methotrexate in breast cancer patients. *Cancer Chemother Pharmacol* 2004; 53(3):220-4.
6. Jordan BF, Beghein N, Crockart N et al. Preclinical safety and antitumor efficacy of insulin combined with irradiation. *Radiother Oncol* 2006; 81(1):112-7.

7. Browne BC, Crown J, Venkatesan N et al. Inhibition of IGF1R activity enhances response to trastuzumab in HER-2-positive breast cancer cells. *Ann Oncol* 2010 Jul 20 [Epub ahead of print].
8. US Clinical Trials Registry. Available online at: www.clinicaltrials.gov . Last accessed August 2010.