MASSACHUSETTS

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Medical Policy
Insulin Potentiation Therapy

Table of Contents

Policy Number: 532

BCBSA Reference Number: 2.01.72A
NCD/LCD: N/A

Related Policies

Insulin Delivery Devices, #332

Policy

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

Insulin potentiation therapy (IPT) is **INVESTIGATIONAL**.

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	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 Blue℠	This is **not** a covered service.
Medicare PPO Blue℠	This is **not** a covered service.

CPT Codes / HCPCS Codes / ICD Codes

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 pharmokinetic 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
2/2020	Policy updated with literature review through February 1, 2020, references added. Policy statements unchanged.
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 September2010.
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.

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6. Jordan BF, Beghein N, Crokart 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.