**HIGHLIGHTS OF PRESCRIBING INFORMATION**
**These highlights do not include all the information needed to use TANZEUM safely and effectively. See full prescribing information for TANZEUM.**

**TANZEUM (albiglutide) for injection, for subcutaneous use**
**Initial U.S. Approval: 2014**

**WARNING: RISK OF THYROID C-CELL TUMORS**
***See full prescribing information for complete boxed warning.***

- **Carcinogenicity of albiglutide could not be assessed in rodents, but other glucagon-like peptide-1 (GLP-1) receptor agonists have caused thyroid C-cell tumors in rodents at clinically relevant exposures. Human relevance of GLP-1 receptor-agonist-induced C-cell tumors in rodents has not been determined. It is unknown whether TANZEUM causes thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans. (5.1, 13.1)**
- **TANZEUM is contraindicated in patients with a personal or family history of MTC or in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Counsel patients regarding the potential risk of MTC and symptoms of thyroid tumors. (4.1, 5.1)**

**RECENT MAJOR CHANGES**

| | |
|---|---|
| Contraindications (4) | 8/2017 |
| Warnings and Precautions (5.4) | 8/2017 |
| Warnings and Precautions, Acute Kidney Injury (5.5) | 12/2017 |

**INDICATIONS AND USAGE**

TANZEUM is a GLP-1 receptor agonist indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. (1)

Limitations of Use:

- Not recommended as first-line therapy for patients inadequately controlled on diet and exercise. (1, 5.1)
- Has not been studied in patients with a history of pancreatitis. Consider other antidiabetic therapies in patients with a history of pancreatitis. (1, 5.2)
- Not for treatment of type 1 diabetes mellitus or diabetic ketoacidosis. (1)
- Not for patients with pre-existing severe gastrointestinal disease. (1)
- Has not been studied in combination with prandial insulin. (1)

**DOSAGE AND ADMINISTRATION**

- Administer once weekly at any time of day, without regard to meals. (2.1)
- Inject subcutaneously in the abdomen, thigh, or upper arm. (2.1)
- Initiate at 30 mg subcutaneously once weekly. Dose can be increased to 50 mg once weekly in patients requiring additional glycemic control. (2.1)
- If a dose is missed, administer within 3 days of missed dose. (2.1)
- See Full Prescribing Information and Patient Instructions for Use for reconstitution of lyophilized powder and administration. (2.4, 2.5, 17)

**DOSAGE FORMS AND STRENGTHS**

For injection: 30 mg or 50 mg in a single-dose Pen. (3)

**CONTRAINDICATIONS**

- TANZEUM is contraindicated in patients with a personal or family history of medullary thyroid carcinoma or in patients with Multiple Endocrine Neoplasia syndrome type 2. (4)
- TANZEUM is contraindicated in patients with a prior serious hypersensitivity reaction to albiglutide or any of the product components. (4, 5.4)

**WARNINGS AND PRECAUTIONS**

- Thyroid C-Cell Tumors: See Boxed Warning. (5.1)
- Acute Pancreatitis: Discontinue promptly if suspected. Do not restart if confirmed. Consider other antidiabetic therapies in patients with a history of pancreatitis. (5.2)
- Hypoglycemia: Can occur when used in combination with insulin secretagogues (e.g., sulfonylureas) or insulin. Consider lowering sulfonylurea or insulin dosage when starting TANZEUM. (5.3)
- Hypersensitivity Reactions: Serious hypersensitivity reactions (e.g., angioedema) have occurred. Discontinue TANZEUM and promptly seek medical advice. (5.4)
- Acute Kidney Injury: Postmarketing cases of worsening renal function and acute renal injury, some requiring hemodialysis, have occurred. Monitor renal function in patients with renal impairment reporting severe adverse gastrointestinal reactions and advise patients to avoid fluid depletion. (5.5)
- Macrovascular Outcomes: There have been no clinical trials establishing conclusive evidence of macrovascular risk reduction with TANZEUM. (5.6)

**ADVERSE REACTIONS**

Adverse reactions reported in ≥5% of patients treated with TANZEUM and more frequently than in patients on placebo were upper respiratory tract infection, diarrhea, nausea, injection site reaction, cough, back pain, arthralgia, sinusitis, and influenza. (6.1)

**To report SUSPECTED ADVERSE REACTIONS, contact GlaxoSmithKline at 1-888-825-5249 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.**

**DRUG INTERACTIONS**

TANZEUM delays gastric emptying. May impact absorption of concomitantly administered oral medications. (7)

**USE IN SPECIFIC POPULATIONS**

- Pregnancy: TANZEUM may cause fetal harm; only use if potential benefit justifies potential risk to fetus. (8.1)
- Acute Kidney Injury: No dosage adjustment recommended. Monitor renal function in patients with renal impairment reporting severe adverse gastrointestinal reactions. (5.5, 8.6)

**See 17 for PATIENT COUNSELING INFORMATION and Medication Guide.**

**Revised: 12/2017**

**FULL PRESCRIBING INFORMATION: CONTENTS***

## FULL PRESCRIBING INFORMATION

**WARNING: RISK OF THYROID C-CELL TUMORS**

- **Carcinogenicity of albiglutide could not be assessed in rodents, but other glucagon-like peptide-1 (GLP-1) receptor agonists have caused thyroid C-cell tumors in rodents at clinically relevant exposures. Human relevance of GLP-1 receptor-agonist-induced C-cell tumors in rodents has not been determined. It is unknown whether TANZEUM causes thyroid C-cell tumors, including medullary thyroid carcinoma (MTC), in humans *[see Warnings and Precautions (5.1), Nonclinical Toxicology (13.1)]*.**
- **TANZEUM is contraindicated in patients with a personal or family history of MTC or in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2). Counsel patients regarding the potential risk of MTC with the use of TANZEUM and inform them of the symptoms of thyroid tumors (e.g., mass in the neck, dysphagia, dyspnea, persistent hoarseness). Routine monitoring of serum calcitonin or using thyroid ultrasound monitoring is of uncertain value for early detection of MTC in patients treated with TANZEUM *[see Contraindications (4.1), Warnings and Precautions (5.1)]*.**

## 1 INDICATIONS AND USAGE

TANZEUM is indicated as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus *[see Clinical Studies (14)]*.

**Limitations of Use:**

- TANZEUM is not recommended as first-line therapy for patients inadequately controlled on diet and exercise because of the uncertain relevance of the rodent C-cell tumor findings to humans. Prescribe TANZEUM only to patients for whom the potential benefits are considered to outweigh the potential risk *[see Warnings and Precautions (5.1)]*.
- TANZEUM has not been studied in patients with a history of pancreatitis *[see Warnings and Precautions (5.2)]*. Consider other antidiabetic therapies in patients with a history of pancreatitis.
- TANZEUM is not indicated in the treatment of patients with type 1 diabetes mellitus or for the treatment of patients with diabetic ketoacidosis. TANZEUM is not a substitute for insulin in these patients.
- TANZEUM has not been studied in patients with severe gastrointestinal disease, including severe gastroparesis. The use of TANZEUM is not recommended in patients with pre-existing severe gastrointestinal disease *[see Adverse Reactions (6.1)]*.
- TANZEUM has not been studied in combination with prandial insulin.

## 2 DOSAGE AND ADMINISTRATION

### 2.1 Dosage

The recommended dosage of TANZEUM is 30 mg once weekly given as a subcutaneous injection in the abdomen, thigh, or upper arm region. The dosage may be increased to 50 mg once weekly if the glycemic response is inadequate.

TANZEUM may be administered at any time of day without regard to meals. Instruct patients to administer TANZEUM once a week on the same day each week. The day of weekly administration may be changed if necessary as long as the last dose was administered 4 or more days before.

If a dose is missed, instruct patients to administer as soon as possible within 3 days after the missed dose. Thereafter, patients can resume dosing on their usual day of administration. If it is more than 3 days after the missed dose, instruct patients to wait until their next regularly scheduled weekly dose.

### 2.2 Concomitant Use with an Insulin Secretagogue (e.g., Sulfonylurea) or with Insulin

When initiating TANZEUM, consider reducing the dosage of concomitantly administered insulin secretagogues (e.g., sulfonylureas) or insulin to reduce the risk of hypoglycemia *[see Warnings and Precautions (5.3)]*.

### 2.3 Reconstitution of the Lyophilized Powder

The lyophilized powder contained within the Pen must be reconstituted prior to administration. See Patient Instructions for Use for complete administration instructions with illustrations. The instructions may also be found at www.TANZEUM.com. Instruct patients as follows:

**Pen Reconstitution**

a) Hold the Pen body with the clear cartridge pointing up to see the [1] in the number window.

b) To reconstitute the lyophilized powder with the diluent in the Pen, twist the clear cartridge on the Pen in the direction of the arrow until the Pen is felt/heard to “click” into place and the [2] is seen in the number window. This mixes the diluent with the lyophilized powder.

c) Slowly and gently rock the Pen side-to-side 5 times to mix the reconstituted solution of TANZEUM. Advise the patient to not shake the Pen hard to avoid foaming.

d) Wait 15 minutes for the 30-mg Pen and 30 minutes for the 50-mg Pen to ensure that the reconstituted solution is mixed.

**Preparing Pen for Injection**

e) Slowly and gently rock the Pen side-to-side 5 additional times to mix the reconstituted solution.

f) Visually inspect the reconstituted solution in the viewing window for particulate matter. The reconstituted solution will be yellow in color. After reconstitution, use TANZEUM within 8 hours.

g) Holding the Pen upright, attach the needle to the Pen by pushing it straight down until there is a click and the needle snaps into place. Gently tap the clear cartridge to bring large bubbles to the top.

See *Dosage and Administration (2.5)* for important administration instructions, including the injection procedure.

**Alternate Method of Reconstitution (Healthcare Professional Use Only)**

The Patient Instructions for Use provide directions for the patient to wait 15 minutes for the 30-mg Pen and 30 minutes for the 50-mg Pen after the lyophilized powder and diluent are mixed to ensure reconstitution.

Healthcare professionals may utilize the following alternate method of reconstitution. Because this method relies on appropriate swirling and visual inspection of the solution, it should only be performed by healthcare professionals.

a) Follow Step A (Inspect Your Pen and Mix Your Medication) in the Instructions for Use. Make sure you have:
   - Inspected the Pen for [1] in the number window and expiration date.
   - Twisted the clear cartridge until [2] appears in the number window and a “click” is heard. This combines the medicine powder and liquid in the clear cartridge.

b) Hold the Pen with the clear cartridge pointing up and maintain this orientation throughout the reconstitution.

c) Gently swirl the Pen in small circular motions for at least one minute. Avoid shaking as this can result in foaming, which may affect the dose.

d) Inspect the solution, and if needed, continue to gently swirl the Pen until all the powder is dissolved and you see a clear yellow solution that is free of particles. A small amount of foam, on top of the solution at the end of reconstitution, is normal.
   - For 30-mg Pen: Complete dissolution usually occurs within 2 minutes but may take up to 5 minutes, as confirmed by visual inspection, for a clear yellow solution free of particles.
   - For 50-mg Pen: Complete dissolution usually occurs within 7 minutes but may take up to 10 minutes.

e) After reconstitution, continue to follow the steps in the Instructions for Use, starting at Step B: Attach the Needle.

### 2.4 Important Administration Instructions

Instruct patients as follows:

- The pen should be used within 8 hours of reconstitution prior to attaching the needle.
- After attaching the supplied needle, remove air bubbles by slowly twisting the Pen until you see the [3] in the number window. At the same time, the injection button will be automatically released from the bottom of the Pen.

- Use immediately after the needle is attached and primed. The product can clog the needle if allowed to dry in the primed needle.
- After subcutaneously inserting the needle into the skin in the abdomen, thigh, or upper arm region, press the injection button. Hold the injection button until you hear a “click” and then hold the button for 5 additional seconds to deliver the full dose.

When using TANZEUM with insulin, instruct patients to administer as separate injections and to never mix the products. It is acceptable to inject TANZEUM and insulin in the same body region but the injections should not be adjacent to each other.

When injecting in the same body region, advise patients to use a different injection site each week. TANZEUM must not be administered intravenously or intramuscularly.

## 3 DOSAGE FORMS AND STRENGTHS

TANZEUM is supplied as follows:

- For injection: 30-mg lyophilized powder in a single-dose Pen (pen injector) for reconstitution.
- For injection: 50-mg lyophilized powder in a single-dose Pen (pen injector) for reconstitution.

## 4 CONTRAINDICATIONS

- **Medullary Thyroid Carcinoma**

TANZEUM is contraindicated in patients with a personal or family history of medullary thyroid carcinoma (MTC) or in patients with Multiple Endocrine Neoplasia syndrome type 2 (MEN 2) *[see Warnings and Precautions (5.1)]*.

- **Hypersensitivity**

TANZEUM is contraindicated in patients with a prior serious hypersensitivity reaction to albiglutide or to any of the product components. Serious hypersensitivity reactions including angioedema have been reported with TANZEUM *[see Warnings and Precautions (5.4)]*.

## 5 WARNINGS AND PRECAUTIONS

### 5.1 Risk of Thyroid C-Cell Tumors

Carcinogenicity of albiglutide could not be assessed in rodents due to the rapid development of drug-clearing, anti-drug antibodies *[see Nonclinical Toxicology (13.1)]*. Other GLP-1 receptor agonists have caused dose-related and treatment–duration-dependent thyroid C-cell tumors (adenomas or carcinomas) in rodents. Human relevance of GLP-1 receptor-agonist-induced C-cell tumors in rodents has not been determined. It is unknown whether TANZEUM causes thyroid C-cell tumors, including MTC, in humans *[see Boxed Warning, Contraindications (4.1)]*.

Across 8 Phase III clinical trials *[see Clinical Studies (14)]*, MTC was diagnosed in 1 patient receiving TANZEUM and 1 patient receiving placebo. Both patients had markedly elevated serum calcitonin levels at baseline. Cases of MTC in patients treated with liraglutide, another

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