

## **JAZZ PHARMACEUTICALS LAUNCHES EDUCATIONAL CAMPAIGN TO RAISE AWARENESS OF HEPATIC VENO-OCCLUSIVE DISEASE (VOD)**

*Educational Campaign, "See the Signs Before VOD Erupts," Will Focus on Educating Healthcare Professionals on the Unpredictability, Signs of Progression, and Potentially Life-threatening Consequences of VOD in Hematopoietic Stem Cell Transplant (HSCT) Patients*

**Dublin, February 12, 2015** – Jazz Pharmaceuticals plc (Nasdaq: JAZZ) announced today the launch of *See the Signs Before VOD Erupts*, an educational campaign to raise awareness among healthcare professionals of hepatic veno-occlusive disease (VOD), a rare, potentially life-threatening, early complication in patients undergoing hematopoietic stem cell transplantation (HSCT) therapy. The campaign includes a comprehensive website, [www.ProgressiveVOD.com](http://www.ProgressiveVOD.com), along with other educational resources designed to educate healthcare professionals on the unpredictability, signs of progression, and potentially life-threatening consequences of VOD, and the need for timely diagnosis.

"VOD can develop unexpectedly in already vulnerable cancer patients who have undergone stem cell transplants, and those patients who develop a severe form of VOD can experience multi-organ failure and face a high risk of death," said Jeffrey Tobias, M.D., executive vice president and chief medical officer of Jazz Pharmaceuticals. "By educating healthcare professionals about VOD – its unpredictability, signs of progression, and potentially life-threatening consequences -- we aim to improve physicians' ability to identify and manage VOD."

The *See the Signs Before VOD Erupts* educational campaign kicks off today at the 2015 BMT (Bone Marrow Transplantation) Tandem meetings, the combined annual meetings of the American Society of Blood and Marrow Transplantation (ASBMT) and the Center for International Blood and Marrow Transplant Research (CIBMTR), in San Diego, California. As part of the launch of the educational campaign, Jazz Pharmaceuticals is conducting a survey of attendees at the BMT Tandem meeting to measure their awareness of VOD signs, symptoms, and mortality rates.

"The use of reduced-intensity pre-transplant conditioning regimens has helped to lower the incidence of VOD over the past decade. Unfortunately, this reduced incidence has made VOD less prominent in the minds of some healthcare professionals, even as the mortality rate remains unacceptably high," commented Kenneth R. Cooke, MD, Director, of the Pediatric Blood and Marrow Transplant Program at the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center. "An incomplete understanding of VOD and its clinical diagnostic features may limit early detection and optimal management. I applaud Jazz Pharmaceuticals for launching this educational campaign, which I hope will heighten the awareness of physicians during the critical, early, post-transplant period."

## About VOD

VOD, also known as sinusoidal obstruction syndrome (SOS), is a complication in patients undergoing HSCT therapy. The condition is characterized by blockage in some of the small blood vessels in the liver, resulting in decreased blood flow within the liver and possibly leading to liver damage. Signs and symptoms include weight gain, jaundice and enlargement of the liver. VOD may also occur after a patient undergoes radiation therapy to the liver or receives anticancer chemotherapy before HSCT.<sup>1</sup>

In its severe form, VOD can be life-threatening and is associated with multi-organ failure, and can be fatal in over 80% of patients.<sup>2,3</sup> Although the disease appears most often within 21 days post-HSCT, its onset can occur later in the course of the patient's recovery from HSCT, even after discharge from the hospital.<sup>2</sup> Early clinical signs such as percent weight gain, mean total bilirubin (indicative of jaundice) and the rate of change in these measures may predict progression to severe VOD.<sup>4,5</sup> However, other conditions may mimic VOD, making early differential diagnosis challenging, yet crucial to successful patient outcomes.<sup>6</sup>

Specific groups of HSCT patients, including children, people who have suffered a previous injury to the liver, and recipients of allogenic (i.e., from another individual) hematopoietic stem cells, are at higher risk of developing VOD.<sup>3</sup> Current treatment approaches usually involve monitoring of clinical lab values, as well as supportive care.

Studies have reported a wide range of incidence rates for VOD in HSCT patients, from as low as 0% to as high as 62%.<sup>3</sup> Generally, data indicate that approximately 14% of patients undergoing HSCT develop VOD.<sup>2,7,8</sup>

## About Jazz Pharmaceuticals plc

Jazz Pharmaceuticals plc (Nasdaq: JAZZ) is an international biopharmaceutical company focused on improving patients' lives by identifying, developing and commercializing meaningful products that address unmet medical needs. The company has a diverse portfolio of products and/or product candidates with a focus in the areas of sleep and hematology/oncology. For more information, please visit [www.jazzpharmaceuticals.com](http://www.jazzpharmaceuticals.com).

## References

<sup>1</sup> National Cancer Institute. NCI Dictionary of Cancer Terms, 2015. <http://www.cancer.gov/dictionary?Cdrid=723872>.

<sup>2</sup> Carreras E. *EBMT-ESH Handbook 2012*. Chapter 11: Early complications after HSCT.

<sup>3</sup> Coppel JA, et al. *Biol Blood Marrow Transplant*. 2010;16:157–168.

<sup>4</sup> McDonald GB, Hinds MS, Fisher LD, et al. *Ann Intern Med*. 1993;118(4):255-267.

<sup>5</sup> Bearman SI. *Blood*. 1995;85(11):3005-3020.

<sup>6</sup> Carreras E. *Eur J Haematol*. 2000;64(5):281-291.

<sup>7</sup>. Carreras E, et al. Blood. 1998;92(10)3599-604.

<sup>8</sup>. Corbaciouglu S, et al. Lancet. 2012;379(9823):131-9.

SOURCE Jazz Pharmaceuticals plc

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