

National Comprehensive Cancer Network® Adds Newly Approved Rylaze™ (asparaginase erwinia chrysanthemi (recombinant)-rywn) to Clinical Practice Guidelines in Oncology for Acute Lymphoblastic Leukemia

July 22, 2021

DUBLIN, July 22, 2021 /PRNewswire/ -- Jazz Pharmaceuticals plc (Nasdaq: JAZZ) today announced that the National Comprehensive Cancer Network[®] (NCCN) added Rylaze[™] (asparaginase erwinia chrysanthemi (recombinant)-rywn) to the Clinical Practice Guidelines in Oncology (NCCN Guidelines[®]) for Acute Lymphoblastic Leukemia (ALL), for both pediatric and adult patients.

The NCCN Guidelines for ALL and the NCCN Guidelines for Pediatric ALL now include asparaginase erwinia chrysanthemi (recombinant)-rywn as a treatment option for patients with hypersensitivity to *E. coli* asparaginase products as a component of the multi-agent chemotherapeutic regimen to complete the full treatment course.

"Asparaginase is a core component of chemotherapeutic regimens in ALL and lymphoblastic lymphoma; however, treatments derived from *E. coli* are associated with the potential for hypersensitivity reactions, which can affect a substantial number of these patients," said Rob lannone, M.D., M.S.C.E., executive vice president, research and development and chief medical officer at Jazz Pharmaceuticals. "Before the FDA approval of *Rylaze*, there was a significant need for an effective and reliable supply of asparaginase medicine that would allow patients the opportunity to start and complete their prescribed treatment program with confidence. We are pleased by the NCCN's decision to quickly incorporate *Rylaze* into the Clinical Practice Guidelines for ALL."

Rylaze was approved by the U.S. Food and Drug Administration (FDA) on June 30, 2021 for use as a component of a multi-agent chemotherapeutic regimen given by intramuscular injection for the treatment of ALL and lymphoblastic lymphoma (LBL) in adult and pediatric patients 1 month or older who have developed hypersensitivity to *E. coli*-derived asparaginase. The approval followed review of a Biologics Licensing Application under the FDA's Real-Time Oncology Review program, and it was based on clinical data from a pivotal Phase 2/3 trial conducted in collaboration with the Children's Oncology Group.

The NCCN Guidelines play a pivotal role in decision-making processes for individuals involved in cancer care all over the world, including physicians, nurses, pharmacists, payers, and patients and their families. The guidelines present expert recommendations for cancer screening, diagnosis and treatment, as well as cancer care options that may increase the chances of favorable outcomes for patients.

The NCCN is a not-for-profit alliance of 30 leading U.S. cancer centers devoted to patient care, research and education that aims to facilitate quality, effective, efficient and accessible care so that patients can live better lives.

About Rylaze ™(asparaginase erwinia chrysanthemi (recombinant)-rywn)

Rylaze, also known as JZP458, is approved in the U.S. for use as a component of a multi-agent chemotherapeutic regimen for the treatment of acute lymphoblastic leukemia (ALL) and lymphoblastic lymphoma (LBL) in adult and pediatric patients 1 month or older who have developed hypersensitivity to E. coli-derived asparaginase. Rylaze has orphan drug designation for the treatment of ALL/LBL in the United States. Rylaze is a recombinant erwinia asparaginase that uses a novel Pseudomonas fluorescens expression platform. JZP458 was granted Fast Track designation by the U.S. Food and Drug Administration (FDA) in October 2019 for the treatment of this patient population. Rylaze was approved as part of the Real-Time Oncology Review program, an initiative of the FDA's Oncology Center of Excellence designed for efficient delivery of safe and effective cancer treatments to patients.

The full U.S. Prescribing Information for Rylaze is available at: http://pp.jazzpharma.com/pi/rylaze.en.USPl.pdf

Important Safety Information

RYLAZE should not be given to people who have had:

- Serious allergic reactions to RYLAZE
- Serious swelling of the pancreas (stomach pain), serious blood clots, or serious bleeding during previous asparaginase treatment

RYLAZE may cause serious side effects, including:

- Allergic reactions (a feeling of tightness in your throat, unusual swelling/redness in your throat and/or tongue, or trouble breathing), some of which may be life-threatening
- Swelling of the pancreas (stomach pain)
- Blood clots (may have a headache or pain in leg, arm, or chest)
- Bleeding
- Liver problems

Contact your doctor immediately if any of these side effects occur.

Some of the most common side effects with RYLAZE include: liver problems, nausea, bone and muscle pain, tiredness, infection, headache, fever, allergic reactions, fever with low white blood cell count, decreased appetite, mouth swelling (sometimes with sores), bleeding, and too much

sugar in the blood.

RYLAZE can harm your unborn baby. Inform your doctor if you are pregnant, planning to become pregnant, or nursing. Females of reproductive potential should use effective contraception (other than oral contraceptives) during treatment and for 3 months following the final dose. Do not breastfeed while receiving RYLAZE and for 1 week after the final dose.

Tell your healthcare provider if there are any side effects that are bothersome or that do not go away.

These are not all the possible side effects of RYLAZE. For more information, ask your healthcare provider.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088 (1-800-332-1088).

About ALL

ALL is a cancer of the blood and bone marrow that can progress quickly if not treated.² Leukemia is the most common cancer in children, and about three out of four of these cases are ALL.³ Although it is one of the most common cancers in children, ALL is among the most curable of the pediatric malignancies due to recent advancements in treatment.^{4,5} Adults can also develop ALL, and about four of every 10 cases of ALL diagnosed are in adults.⁶ The American Cancer Society estimates that almost 6,000 new cases of ALL will be diagnosed in the United States in 2021.⁶ Asparaginase is a core component of multi-agent chemotherapeutic regimens in ALL.⁷ However, asparaginase treatments derived from *E. coli* are associated with the potential for development of hypersensitivity reactions.⁸

About Lymphoblastic Lymphoma

LBL is a rare, fast-growing, aggressive subtype of Non-Hodgkin's lymphoma, most often seen in teenagers and young adults. LBL is a very aggressive lymphoma – also called high-grade lymphoma – which means the lymphoma grows quickly with early spread to different parts of the body. 9,10

About Jazz Pharmaceuticals plc

Jazz Pharmaceuticals plc (NASDAQ: JAZZ) is a global biopharmaceutical company whose purpose is to innovate to transform the lives of patients and their families. We are dedicated to developing life-changing medicines for people with serious diseases – often with limited or no therapeutic options. We have a diverse portfolio of marketed medicines and novel product candidates, from early- to late-stage development, in neuroscience and oncology. We actively explore new options for patients including novel compounds, small molecules and biologics, and through cannabinoid science and innovative delivery technologies. Jazz is headquartered in Dublin, Ireland and has employees around the globe, serving patients in nearly 75 countries. For more information, please visit www.jazzpharmaceuticals.com and follow @JazzPharma on Twitter.

Caution Concerning Forward-Looking Statements

This press release contains forward-looking statements, including, but not limited to, statements related to Jazz Pharmaceuticals' belief in the potential of *Rylaze* to provide a reliable therapeutic option for adult and pediatric patients to maximize their chance for a cure, the availability of a reliable supply of *Rylaze*, and other statements that are not historical facts. These forward-looking statements are based on Jazz Pharmaceuticals' current plans, objectives, estimates, expectations and intentions and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, without limitation, effectively launching and commercializing new products; obtaining and maintaining adequate coverage and reimbursement for the company's products; delays or problems in the supply or manufacture of the company's products; and other risks and uncertainties affecting the company, including those described from time to time under the caption "Risk Factors" and elsewhere in Jazz Pharmaceuticals' Securities and Exchange Commission filings and reports (Commission File No. 001-33500), including Jazz Pharmaceuticals' Annual Report on Form 10-K for the year ended December 31, 2020 and future filings and reports by Jazz Pharmaceuticals. Other risks and uncertainties of which Jazz Pharmaceuticals is not currently aware may also affect Jazz Pharmaceuticals' forward-looking statements and may cause actual results and the timing of events to differ materially from those anticipated. The forward-looking statements herein are made only as of the date hereof or as of the dates indicated in the forward-looking statements, even if they are subsequently made available by Jazz Pharmaceuticals on its website or otherwise. Jazz Pharmaceuticals undertakes no obligation to update or supplement any forward-looking statements to reflect actual results, new information, future

Jazz Media Contact:

Jacqueline Kirby
Vice President, Corporate Affairs
Jazz Pharmaceuticals plc
CorporateAffairsMediaInfo@jazzpharma.com
Ireland, +353 1 697 2141
U.S. +1 215 867 4910

Jazz Investor Contact:

Andrea N. Flynn, Ph.D.
Vice President, Head, Investor Relations
Jazz Pharmaceuticals plc
investorinfo@jazzpharma.com
Ireland, +353 1 634 3211

References

- 1. Rylaze (asparaginase erwinia chrysanthemi (recombinant)-rywn) injection, for intramuscular use Prescribing Information. Palo Alto, CA: Jazz Pharmaceuticals, Inc.
- 2. National Cancer Institute. Adult Acute Lymphoblastic Leukemia Treatment (PDQ®)—Patient Version. Available at www.cancer.gov/types/leukemia/patient/adult-all-treatment-pdq. Accessed July 21, 2021

- 3. American Cancer Society. Key Statistics for Childhood Leukemia. Available at https://www.cancer.org/cancer/leukemia-in-children/about/key-statistics.html. Accessed July 21, 2021.
- 4. American Cancer Society. Cancer Facts & Figures 2019. www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures-2019.html. Accessed July 21, 2021.
- 5. Pui C, Evans W. A 50-Year Journey to Cure Childhood Acute Lymphoblastic Leukemia. Seminars in Hematology. 2013;50(3), 185-196.
- 6. Pui C, Evans W. A 50-Year Journey to Cure Childhood Acute Lymphoblastic Leukemia. Seminars in Hematology. 2013;50(3), 185-196.
- 7. Salzer W, Bostrom B, Messinger Y et al. 2018. Asparaginase activity levels and monitoring in patients with acute lymphoblastic leukemia. Leukemia & Lymphoma. 59:8, 1797-1806, DOI: 10.1080/10428194.2017.1386305.
- 8. Hijiya N, van der Sluis IM. Asparaginase-associated toxicity in children with acute lymphoblastic leukemia. Leuk Lymphoma. 2016;57(4):748–757. DOI: 10.3109/10428194.2015.1101098.
- 9. Leukemia Foundation. Lymphoblastic Lymphoma. Available at https://www.leukaemia.org.au/disease-information /lymphomas/non-hodgkin-lymphoma/other-non-hodgkin-lymphomas/lymphoblastic-lymphoma/. Accessed July 21, 2021.
- 10. Mayo Clinic. Acute Lymphocytic Leukemia Diagnosis. Available at https://www.mayoclinic.org/diseases-conditions/acute-lymphocytic-leukemia/diagnosis-treatment/drc-20369083. Accessed July 21, 2021.



C View original content to download multimedia: https://www.prnewswire.com/news-releases/national-comprehensive-cancer-network-adds-newly-approved-rylaze-asparaginase-erwinia-chrysanthemi-recombinant-rywn-to-clinical-practice-guidelines-in-oncology-for-acute-lymphoblastic-leukemia-301339856.html

SOURCE Jazz Pharmaceuticals plc