Brineura® (cerliponase alfa) is a prescription medication used to slow loss of ability to walk or crawl (ambulation) in symptomatic pediatric patients 3 years of age and older with late infantile neuronal ceroid lipofuscinosis type 2 (CLN2), also known as tripeptidyl peptidase 1 (TPP1) deficiency.

Please see Important Safety Information throughout, and full Prescribing Information.

Starting Brineura

Understanding CLN2 disease and preparing for treatment

Brineura®
(cerliponase alfa)

Matty, age 7
Treated with Brineura

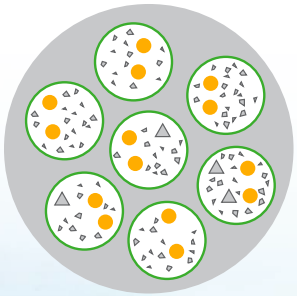
What is CLN2 disease?

CLN2 is a rare neurodegenerative disease that affects children[1,2]

- CLN2 is a part of a larger group of conditions called neuronal ceroid lipofuscinoses (NCLs).[2] This group of disorders is commonly known as Batten disease[3]
- Caused by a mutation in the *TPP1* gene, also referred to as the *CLN2* gene[2]
- CLN2 is an inherited disease and is referred to as an autosomal recessive disorder[1,2]

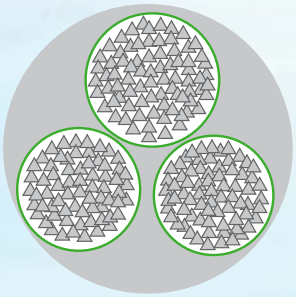
CLN2 disease is a type of lysosomal storage disorder, or LSD, that primarily affects cells in the brain[2,4]

There are lysosomes inside every cell. Lysosomes contain enzymes that break down material in the cell. One of these enzymes is called tripeptidyl peptidase 1, or TPP1. Over time, without functioning TPP1 enzymes, cells stop functioning normally. As this happens, symptoms of CLN2 disease appear.



HEALTHY CELL

In healthy brain cells, lysosomes use TPP1 enzymes to break down materials.[4]



CLN2 CELL

In CLN2 disease, TPP1 enzymes are missing or not working properly, and the lysosome can't use TPP1 to break down materials. Instead, the lysosome stores materials. This buildup of storage materials is associated with damage to cells in the brain and eyes.[3-5]

Lysosomes Storage material TPP1 enzymes

CLN2 disease–specific language, which may require further explanation, is used in this brochure. Definitions can be found on page 13.

Please see Important Safety Information throughout, and full Prescribing Information.

In CLN2 disease, there is usually a rapid and predictable decline in a child's functional abilities, especially in his or her ability to move independently[6]

- At first, children may fall down frequently and appear to be unsteady or clumsy on their feet or while walking
- Over time, children will need more help with walking and moving, relying on support from mobility devices or their caregiver
- Eventually, children lose all mobility, including the abilities to walk or crawl, and will need to use a wheelchair and other equipment

In addition, children with CLN2 disease may experience a range of symptoms, including language development delay, seizures, loss of cognition, and vision loss[4]

"Layla is touching lives—not only has she touched other people's lives, I feel like she's made me a better person. I feel like I'm way more empathetic… Learning and going through this is something that really makes you realize what's important."

—Maria, Layla's mom

Layla, age 7
Treated with Brineura

Please see Important Safety Information throughout, and full Prescribing Information.

Brineura® (cerliponase alfa) addresses the cause of CLN2 disease and is approved to slow the loss of ambulation[7]

Brineura is a type of treatment called enzyme replacement therapy (ERT)

- Brineura is a prescription medication used to slow loss of ability to walk or crawl (ambulation) in symptomatic pediatric patients 3 years of age and older with late infantile neuronal ceroid lipofuscinosis type 2 (CLN2), also known as TPP1 deficiency[7]
- Brineura is administered through intraventricular infusion to help replace the TPP1 enzyme, the enzyme that is missing or not working properly in children with CLN2 disease[7]
- Intraventricular infusion is a method in which a drug is infused directly into a ventricle into the brain. It is an established method with clinical experience in other disease areas[8]
- A port or reservoir will need to be placed just below your child's scalp, allowing Brineura to be directly infused into the fluid surrounding the brain, known as the cerebrospinal fluid, or CSF[7,8]

The CLN2 Clinical Rating Scale was used to measure how Brineura works[7]

In a clinical study, each child's ability to walk, with or without assistance, was evaluated over approximately 2 years using the Motor domain of the CLN2 Clinical Rating Scale. Scores range from 3 (normal) to 0 (loss of walking/crawling abilities). Each score represents a range of function.

CLN2 CLINICAL RATING SCALE[6,7,9]

3	**Normal***	Mostly normal walking. No noticeable loss of body control; not constantly falling.
2	**Some difficulty walking**	Can walk independently, as defined by ability to walk without support for 10 steps. Will show obvious instability and may fall every so often.
1	**Needs help walking**	Need help to walk, or can crawl only.
0	**Loss of walking/ crawling abilities**	Can no longer walk or crawl.

Adapted from: Steinfeld R, et al. *Am J Med Genet.* 2002:112:347-354.
*In some children, walking abilities were never completely normal and were rated as a 2.

Brineura should not be used in patients with active intraventricular access device–related complications (eg, leakage, device failure, or device-related infection, including meningitis), any symptom of acute, unresolved localized infection around the device insertion site (eg, cellulitis or abscess), or and with shunts used to drain extra fluid around the brain.

Please see Important Safety Information throughout, and full Prescribing Information.

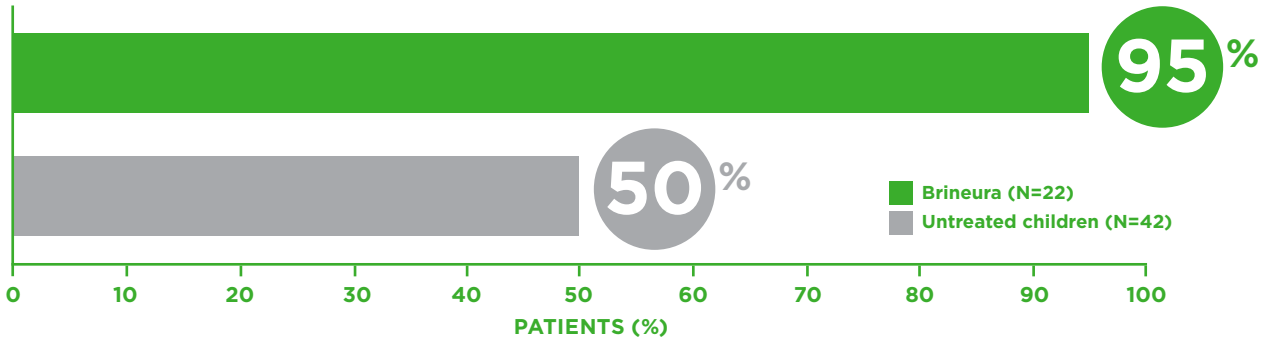
Brineura® (cerliponase alfa) helped maintain children's ability to walk, with or without assistance, over approximately 2 years of treatment[7]

Brineura was evaluated in 24 children with CLN2 disease in an ongoing clinical study[7]

- Patients in the study ranged from 3 to 8 years old; 15 of the patients were girls and 9 were boys[7]
- Average age at first symptom was 3.4 years (the age range was 2.5 to 6.3 years)[10]
- Data from patients with CLN2 disease was compared with data from an independent study of disease progression in untreated children with CLN2 disease[7]

In the study, **Decline** was defined as a sustained drop of 2 points or a score of 0 on the CLN2 Clinical Rating Scale.[7]

PATIENTS WHO DID NOT EXPERIENCE THIS DECLINE IN THEIR ABILITY TO WALK OR CRAWL AT APPROXIMATELY 2 YEARS[7]



- One patient withdrew after week 1 due to inability to continue with study procedures, and was analyzed as having a decline at the time of termination[7]
- Ten children treated with the recommended dose of Brineura dropped 1 point over approximately 2 years on the Motor domain of the CLN2 Clinical Rating Scale[10]

Children in the study were evaluated for approximately 2 years. This study and others are ongoing.

CLN2 disease progresses over time. Each child's experience with Brineura will be different.

Low blood pressure and/or slow heart rate may occur during and following the infusion of Brineura. Contact your child's healthcare provider immediately if these reactions occur.

Hypersensitivity reactions including serious and severe allergic reactions (anaphylaxis) may occur. Symptoms of anaphylaxis may include fever, respiratory distress, rash, vomiting, and irritability, and may occur during treatment or within several hours of Brineura infusion.

Please see Important Safety Information throughout, and full Prescribing Information.

Brineura®
(cerliponase alfa)

Getting started with the Brineura® (cerliponase alfa) treatment process

When your child is ready to begin Brineura, it's helpful to understand more about the infusion process. Every hospital has its own policies and treatment procedures. This guide can give you a sense of what you and your child may experience before, during, and after their Brineura infusions.

Partner with your healthcare team every step of the way

Your healthcare team at the hospital will work on an individualized plan for your child, which your doctor will discuss with you. As a parent or caregiver, you are a source of support and comfort for your child, so staying informed and preparing ahead of time may help your child feel more at ease. Keep in close contact with your healthcare team about how your child is doing and any instructions for your child's care. They are your partners in this journey, so don't hesitate to reach out to them with any questions or concerns you may have.

Brineura infusion will take about 4.5 hours every other week[7]

"Every two weeks, Matty takes a drive down to Boston in the morning with his grandparents for his treatment, and he is home by dinnertime. Then he is back to school the next day. It's become routine for our family."

—Joe, Matty's dad

Please see Important Safety Information throughout, and full Prescribing Information.

How Brineura® (cerliponase alfa) is administered

Brineura is delivered over approximately 4.5 hours by intraventricular infusion[7]

- Intraventricular drug delivery is an established method in other disease areas, including oncology[8]
- Knowledgeable members of your healthcare team will give your child's Brineura infusions
- Before starting Brineura, your child will need to have an intraventricular access port surgically implanted[7]—an established procedure in pediatric neurology[8]

Before your child's first infusion:

MRI brain scans to help place the port

- MRI (magnetic resonance imaging) scans are used to help the surgeon locate where the port should be inserted, and to confirm placement after the surgery[11]

Surgery to implant the port

- The port is implanted just below the scalp.[8] It has a reservoir about the size of a penny, with a straw-like catheter that extends down from the reservoir so that Brineura can be infused directly into the ventricle[7]
- After the port is placed, your healthcare team will work with you to schedule infusions. It is recommended that Brineura treatment begin at least 5 to 7 days after your child's port is implanted[7]
- Before 4 years of Brineura infusions have been completed, the port will need to be replaced.[7] Your healthcare team will advise you when this is needed
- Brineura is intended to be administered via the Codman®-branded HOLTER RICKHAM port.[7] BioMarin can provide education around port selection to the medical team

Intraventricular access device–related infections, including meningitis, were observed with Brineura treatment. If any signs of infection or meningitis occur, contact your child's doctor immediately[7]

Post-implant port area on Matty.

Please see Important Safety Information throughout, and full Prescribing Information.

Brineura®
(cerliponase alfa)

Preparing for infusion days

Below are important steps that will help prepare you and your child for infusion of Brineura® (cerliponase alfa).

Talk with your child about the infusion process in a way that is comfortable for both of you. Your child may look to you for guidance, so it's important to stay positive and reassuring.

Plan ahead for any items you may need to bring. It may be helpful to talk with your child about special things you will do on infusion days, like watching their favorite TV show or reading a favorite book.

- Your child will have to sit relatively still during the infusion process, so consider bringing comforting items to keep your child engaged and entertained. Items can include tablets or similar devices, books, toys, snacks, music, games, or favorite items
- You may want to wash your child's hair with a special antibacterial shampoo the day before the infusion, to prevent potential infections[12]
- You may want to bring hair clips to hold back your child's hair, or a hat or scarf for your child to wear home

Update your healthcare team on any changes to your child's medications.

Carry the contact information of your healthcare team with you at all times in case any questions or concerns arise.

"After the first few infusions we became more comfortable, because it simply became routine for us. The initial surgery for the port was scary, as is any surgery with your child, so we felt like that was the first hurdle to jump. Once Matty had a few infusions, we were very comfortable with the process."

—Joe, Matty's dad

Preparation

Accessing the port

Infusion

Please see Important Safety Information throughout, and full Prescribing Information.

What to expect on infusion days

Below is an example of what you may expect on an infusion day. Your experience may be slightly different since each hospital has its own procedures.

Prepare by following your healthcare team's directions for what to do before the appointment. Directions vary, and **may** include:

- Removing a small patch of your child's hair to prepare for accessing the intraventricular access device.[8] You may want to use a clipper for the hair removal
- Applying numbing cream to a small area of your child's head[12]
- Giving your child pretreatment medication 30 to 60 minutes before the infusion begins, to reduce the risk of reactions, like fever or hypersensitivity—your healthcare team will provide instructions[7]

During the appointment

MAINTAINING A STERILE ENVIRONMENT

Your child's healthcare team will use aseptic technique according to the institution's procedures to help reduce the risk of infection.

- You may be asked to wear a mask[8]
- The number of people in the room will be limited during the infusion, especially when accessing the intraventricular access device—ask your healthcare team who and what is allowed in the room[8]
- A healthcare team member may apply a numbing cream to the scalp before the infusion[12]
- Your child's doctor will take a sample of CSF for cell count and culture before each infusion[7]
- The skin over the port area will be cleaned by a healthcare team member[8]
- Please follow your healthcare team's instructions carefully—take care not to touch the skin over the access device once it is cleaned[8]

ACCESSING THE INTRAVENTRICULAR ACCESS DEVICE

- You may be asked to hold your child or sit behind them on the bed while the access needle is inserted to minimize movement during this part of the infusion
- Your child's head may be wrapped in gauze during or after the infusion process[8]
- Intraventricular access device–related infections, including meningitis, were observed with Brineura treatment. If any signs of infection—such as swelling or reddening of the skin—or signs of meningitis occur, contact your child's doctor immediately[7]

DURING THE INFUSION

- Your child can sit or lie down in a bed, chair, or stroller during the infusion and play with games or electronics[8]
  - Take care to minimize your child's movement during the infusion to avoid disconnecting the needle
- Brineura® (cerliponase alfa) infusion will take about 4.5 hours, and preparation of the port site and observation time after the infusion can vary depending on your hospital's protocol.[7] Ask your healthcare team how long you should plan to keep your child entertained during treatment
- Your child's vital signs will be monitored regularly[7]

Please see Important Safety Information throughout, and full Prescribing Information.

Post-infusion care

Immediately after infusion

- Follow your hospital's instructions for care and bandage removal
- You and your child should avoid touching or putting direct pressure on the intraventricular access device and surrounding area[12]

First few days following infusion

- Follow your healthcare team's instructions about wetting your child's head, shampooing, and using public pools or other areas that may expose the device to water
- Ask your healthcare team if your child can wear hats, caps, or bows

After your child's Brineura® (cerliponase alfa) infusion, watch for signs of the following[7]:

- Intraventricular access device–related complications
  - There is a risk of device-related infections. There are steps the doctor can take to reduce this risk with every treatment. If you see any signs of infection, such as swelling or reddening of the skin, contact your healthcare team immediately
- Cardiovascular adverse reactions
  - Low blood pressure or slow heart rate may occur during and following Brineura infusion. Contact your healthcare team immediately if either occur
- Hypersensitivity
  - Hypersensitivity reactions related to Brineura treatment may occur, including fever, vomiting, and irritability. Some patients may experience anaphylaxis (severe allergic reactions to medicine). Talk to your healthcare team about signs and symptoms of anaphylaxis, and contact them immediately if any occur

Your healthcare team can let you know which activities are appropriate and safe for your child to do after their infusion. Your child may be able to return to regular routines and activities after infusion.

Please see Important Safety Information throughout, and full Prescribing Information.

Possible side effects of Brineura® (cerliponase alfa)[7]

Brineura can cause side effects. Talk to your healthcare team immediately if your child experiences any side effects.

The most common side effects reported during Brineura infusions included[7]:

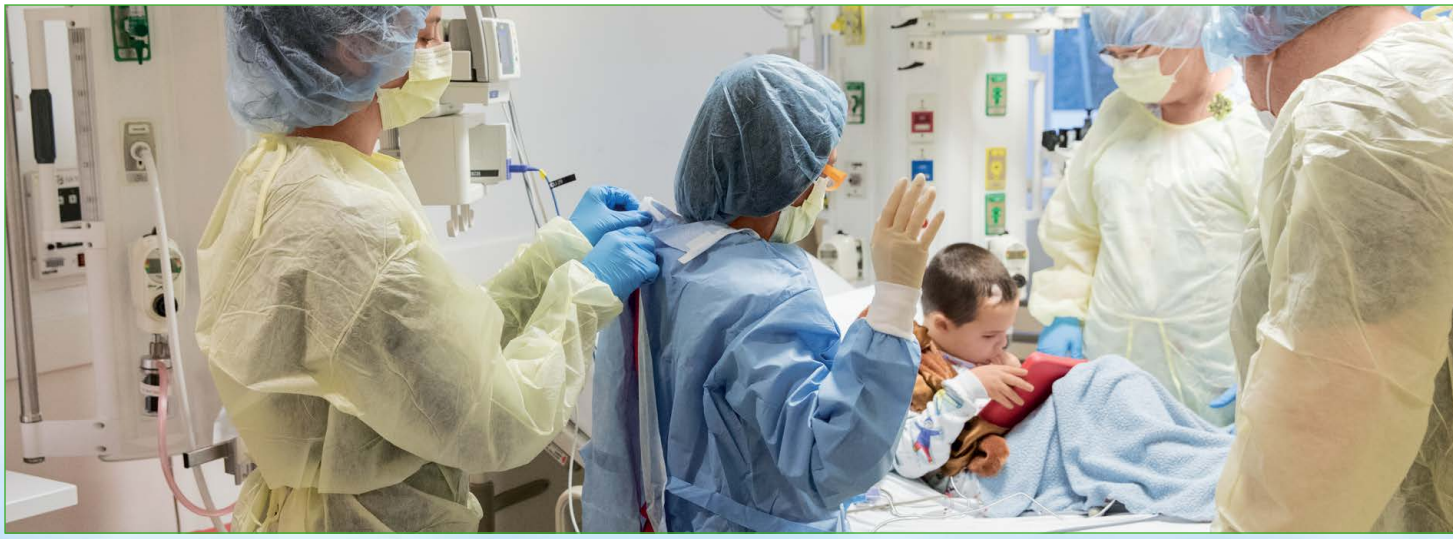
- Fever
- Problems with the electrical activity of the heart (arrhythmia)
- Decreased or increased protein in the fluid of the brain
- Vomiting
- Seizures
- Device-related complications
- Hypersensitivity
- Collection of blood outside of blood vessels (hematoma)
- Headache
- Irritability
- Feeling jittery
- Increased white blood cell count in the fluid of the brain
- Device-related infections
- Slow heart rate
- Low blood pressure

These are not all of the possible side effects with Brineura. Talk to your child's doctor if they have any symptoms that bother them or that do not go away.

What to watch for after infusion

After Brineura infusion, it is very important to watch for signs of infection—such as swelling or reddening of the skin—or port leakage.[7]

Make sure that you have the emergency contact information for your healthcare team and keep it readily accessible at all times and in multiple places. Also be sure to provide this information to other family members and your child's day care or school.



Please see Important Safety Information throughout, and full Prescribing Information.

Available support and resources throughout your journey

Caring for a child who has CLN2 disease can be emotionally and physically demanding. Connecting with other parents/caregivers and healthcare professionals can help make the disease easier to manage. Fortunately, there are support resources available to you and your family.

Batten Disease Support and Research Association (BDSRA)

The BDSRA is committed to providing family support services and has experience coordinating travel logistics for CLN2 families. If you have a child with CLN2 disease, the BDSRA welcomes you and wants to answer your questions.

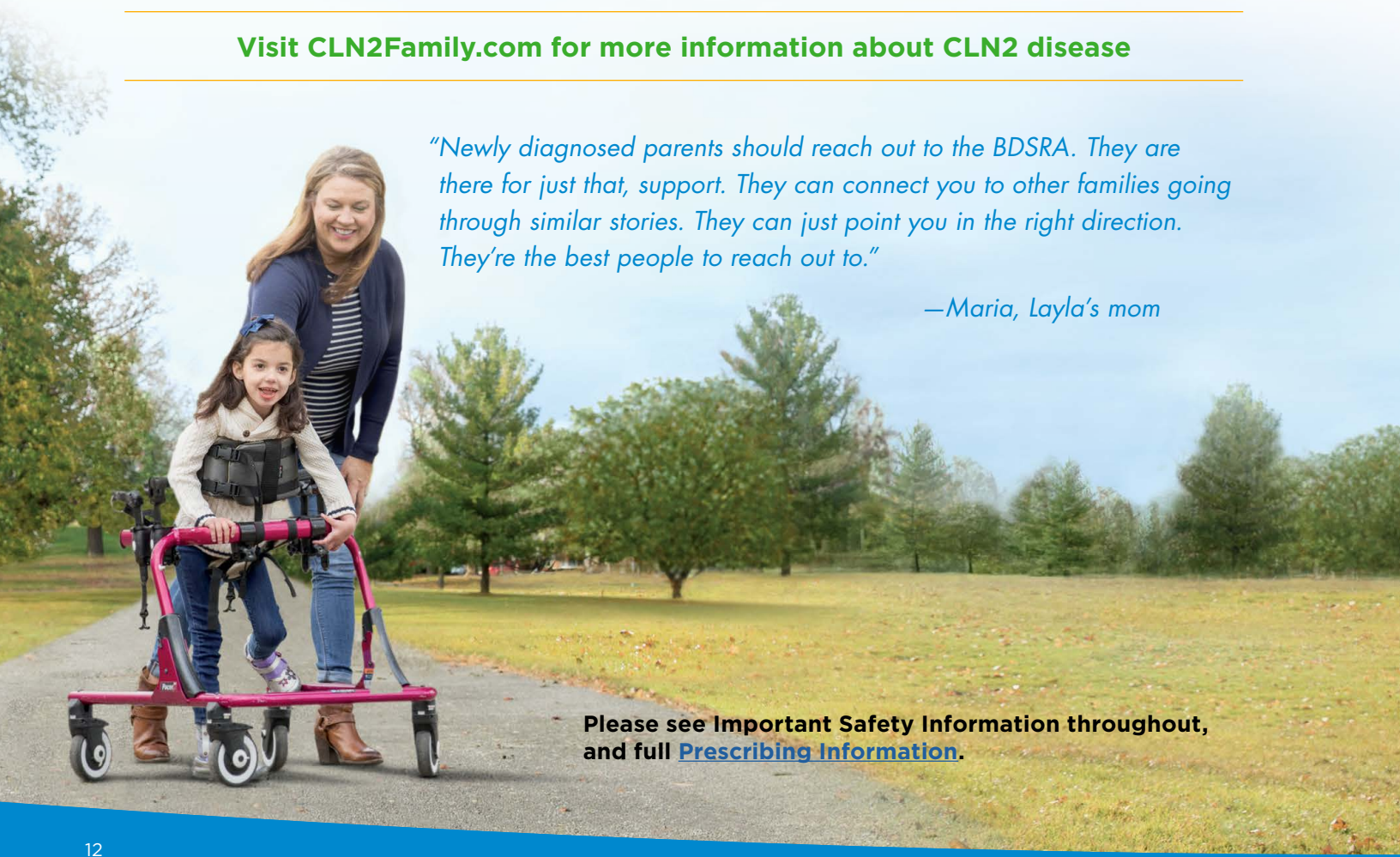
Join the BDSRA community at bdsra.org or 1-800-488-4570.
Contact Morgan DeBoth, BDSRA's Manager of Family Support at mdeboth@bdsra.org.

Uncommon Support for Rare Disease

Beyond the therapeutic support provided to children with CLN2 disease, BioMarin is committed to supporting family members and caregivers. BioMarin RareConnections™ provides personalized support to coordinate additional services, including information about financial assistance programs.

Visit biomarin-rareconnections.com or contact the BioMarin RareConnections team for more information by emailing support@biomarin-rareconnections.com or by calling 1-866-906-6100.

Visit CLN2Family.com for more information about CLN2 disease



"Newly diagnosed parents should reach out to the BDSRA. They are there for just that, support. They can connect you to other families going through similar stories. They can just point you in the right direction. They're the best people to reach out to."

—Maria, Layla's mom

Please see Important Safety Information throughout, and full Prescribing Information.

Definitions[2,5-7,13]

Autosomal recessive disease
A pattern of inheritance where 2 mutated genes (one from each parent) are passed to their child, which then causes a certain disease.

Batten disease
A group of rare autosomal recessive, neurodegenerative disorders that typically begin in childhood. It is named for Dr. Batten, who discovered the disease.

Cerebrospinal fluid (CSF)
Body fluid surrounding the brain and spine.

Cerliponase alfa
A drug form of human TPP1, the enzyme that is absent, missing, or not working properly in patients with CLN2 disease. It is the generic name for Brineura® (cerliponase alfa).

CLN2 disease
A rare autosomal recessive disorder where lysosomes in the brain don't have enough of the TPP1 enzyme to break down materials in cells.

CLN2 Clinical Rating Scale
This scale was designed specifically for CLN2 disease and evaluates motor function. It can also help doctors determine how well treatment with Brineura is working.

Enzyme
Proteins that cause reactions to occur in cells.

Enzyme replacement therapy (ERT)
A treatment that helps replace missing or improperly working enzymes. In the case of CLN2 disease, treatment with ERT helps replace the TPP1 enzyme.

Hypersensitivity
A set of reactions produced by the immune system.

Infusion
A way in which drugs are delivered into the veins or ventricles.

Intraventricular infusion
A method in which a drug is infused directly into a ventricle in the brain. This is how Brineura is delivered in children with CLN2 disease.

Lysosome
Lysosomes are structures within cells that contain enzymes. One of their primary purposes is to recycle materials using enzymes.

Lysosomal storage disorder (LSD)
An inherited disease that is caused by an abnormal build-up of materials in lysosomes in the body's cells as a result of a reduced amount of a particular enzyme. Nearly 50 various types of LSD have been identified to date.

Meningitis
An inflammation, or swelling, of the protective membranes covering the brain and spinal cord.

Motor function
The ability to walk or crawl, which is what the CLN2 Clinical Rating Scale measures.

Neuronal ceroid lipofuscinoses (NCLs)
A group of rare, genetic, neurodegenerative disorders.

Neurodegenerative
Having a decline in brain function.

Tripeptidyl peptidase 1 (TPP1)
An enzyme that breaks down material in cells. A reduced amount of this enzyme is what causes CLN2 disease.

Ventricle
A hollow cavity. In the brain, this cavity contains CSF.

Please see Important Safety Information throughout, and full Prescribing Information.

What is Brineura?

Brineura® (cerliponase alfa) is a prescription medication used to slow loss of ability to walk or crawl (ambulation) in symptomatic pediatric patients 3 years of age and older with late infantile neuronal ceroid lipofuscinosis type 2 (CLN2), also known as tripeptidyl peptidase 1 (TPP1) deficiency.

Who should not take Brineura?

- Patients with active intraventricular access device-related complications (eg, leakage, device failure, or device-related infection, including meningitis)
- Patients with any sign or symptom of acute or unresolved localized infection around the device insertion site (eg, cellulitis or abscess) or suspected or confirmed central nervous system (CNS) infection (eg, cloudy cerebrospinal fluid [CSF] or positive CSF gram stain, or meningitis)
- Patients with shunts used to drain extra fluid around the brain

What is the most important information I should know about Brineura?

Administration: Brineura is only given by infusion into the fluid of the brain (known as an intraventricular injection) and using sterile technique to reduce the risk of infection. An intraventricular access device or port must be in place at least 5 to 7 days prior to the first infusion.

- Prior to administration, it is important to discuss your child's medical history with their doctor
- Tell the doctor if they are sick or taking any medication and if they are allergic to any medicines

Meningitis and other device-related infections: Intraventricular access device-related infections, including meningitis, were observed with Brineura treatment. Infections required treatment with antibiotics and removal of the access device. If any signs of infection or meningitis occur, contact your child's doctor immediately. The signs and symptoms of infections may not be readily apparent in patients with CLN2 disease.

- Your child's doctor should vigilantly be looking for signs and symptoms of infection, including meningitis, during treatment with Brineura
- Your child's doctor should inspect the scalp and collect samples of your child's CSF prior to each infusion of Brineura, to check for infections and that there is no device failure
- Signs of infection on or around the device insertion site may include redness, tenderness, or discharge

Device-related complications such as device leakage, device failure, extravasation of CSF fluid, or bulging of the scalp around or above the intraventricular access device have occurred. In case of intraventricular access device-related complications, Brineura infusions may be discontinued.

Material degradation of the intraventricular access device reservoir was reported after approximately 4 years of administration, which may impact the effective and safe use of the device. During testing such material degradation was recognized after approximately 105 perforations of the intraventricular access device. The intraventricular access device should be replaced prior to 4 years of single-puncture administrations, which equates to approximately 105 administrations of Brineura.

Cardiovascular side effects: Low blood pressure and/or slow heart rate may occur during and following the infusion of Brineura. Contact your child's healthcare provider immediately if these reactions occur. As part of the infusion, the healthcare provider will monitor vital signs (blood pressure, heart rate) before infusion starts, periodically during infusion, and post-infusion, and assess the patient's status after administration to determine if continued observation may be necessary. Additional monitoring is required for patients with a history of cardiac abnormalities. In patients without cardiac abnormalities, regular 12-lead electrocardiogram (ECG) evaluations should be performed every 6 months.

Hypersensitivity reactions including serious and severe allergic reactions (anaphylaxis) may occur. Symptoms of anaphylaxis may include fever, respiratory distress, rash, vomiting, and irritability, and may occur during treatment or within several hours of Brineura infusion. Seek immediate medical care should signs and symptoms of anaphylaxis occur. Your child may receive medication such as antihistamines before Brineura infusions to reduce the risk of reactions.

If anaphylaxis occurs, you and your child's healthcare providers should consider the risks and benefits of readministration of Brineura. If the decision is made to readminister Brineura after the occurrence of anaphylaxis, the healthcare providers should ensure appropriately trained personnel and equipment for emergency resuscitation (including epinephrine and other emergency medicines) are readily available during infusion and will start the subsequent infusion at approximately one-half the initial infusion rate at which the anaphylactic reaction occurred.

The most common side effects reported during Brineura infusions included:

- Fever, problems with the electrical activity of the heart, decreased or increased protein in the fluid of the brain, vomiting, seizures, device-related complications, hypersensitivity, collection of blood outside of blood vessels (hematoma), headache, irritability, increased white blood cell count in the fluid of the brain, device-related infection, slow heart rate, feeling jittery, and low blood pressure

The risk information provided here is not comprehensive. Talk to your healthcare provider to learn more or for medical advice about any side effects.

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.

Please click here to see full Prescribing Information or visit www.Brineura.com.

For more information on how to get started with Brineura, contact BioMarin RareConnections™ at 1-866-906-6100 or support@biomarin-rareconnections.com

Brineura® (cerliponase alfa)

References: 1. Kohlschütter A, Schulz A. CLN2 disease (classic late infantile neuronal ceroid lipofuscinosis). *Pediatr Endocrinol Rev.* 2016;13(suppl 1):682-688. **2.** Mole SE, Williams RE. Neuronal ceroid-lipofuscinoses. In: Pagon RA, Adam MP, Ardinger HH, et al, eds. *GeneReviews®*. Seattle: University of Washington; 2001 (updated August 1, 2013). **3.** Haltia M. The neuronal ceroid-lipofuscinoses: from past to present. *Biochimica et Biophysica Acta.* 2006;1762:850-856. **4.** Mole SE, Williams RE, Goebel HH. Correlations between genotype, ultrastructural morphology and clinical phenotype in the neuronal ceroid lipofuscinoses. *Neurogenetics.* 2005;6:107-126. **5.** Schulz A, Kohlschütter A, Mink J, Simonati A, Williams R. NCL diseases – clinical perspectives. *Biochim Biophys Acta.* 2013;1832:1801-1806. **6.** Steinfeld R, Heim P, von Gregory H, et al. Late infantile neuronal ceroid lipofuscinosis: quantitative description of the clinical course in patients with CLN2 mutations. *Am J Med Genet.* 2002;112:347-354. **7.** Brineura [package insert]. Novato, CA: BioMarin Pharmaceutical Inc; 2020. **8.** Cohen-Pfeffer JL, Gururangan S, Lester T, et al. Intracerebroventricular delivery as a safe, long-term route of drug administration. *Pediatr Neurol.* 2017;67:23-35. **9.** Schulz A, Ajayi T, Specchio N, et al. Study of intraventricular cerliponase alfa for CLN2 disease. *N Engl J Med.* 2018;378:1898-1907. **10.** Data on file. BioMarin Pharmaceutical Inc. **11.** Peyrl A, Chocholous M, Azizi AA, et al. Safety of Ommaya reservoirs in children with brain tumors: a 20-year experience with 5472 intraventricular drug administrations in 98 patients. *J Neurooncol.* 2014;120:139-145. **12.** Slavc I, Cohen-Pfeffer JL, Gururangan S, et al. Best practices for the use of intracerebroventricular drug delivery devices. *Mol Gen Metab.* 2018;124:184-188. **13.** Batten disease fact sheet. National Institutes of Health, National Institute of Neurological Disorders and Stroke website. https://www.ninds.nih.gov/Disorders/Patient-Caregiver-Education/Fact-Sheets/Batten-Disease-Fact-Sheet. Updated March 13, 2020. Accessed February 3, 2021.

BIOMARIN