# RYANODEX® requires significantly fewer vials and less volume of administered IV fluid<sup>2-4</sup>

Dosage schedule based on patient's weight and MHAUS-recommended loading dose of 2.5 mg per kg\*5

bosage schedule based on patient's weight and MILAOS-recommended loading dose of 2.5 mg per kg				
Patient's weight in kg	Patient's weight in pounds	Number of 250-mg vials to reconstitute	mg dosage needed	mL of reconstituted RYANODEX® to administer
5	11	1	12.5 mg	0.25 mL
10	22	1	25 mg	0.5 mL
15	33	1	37.5 mg	0.75 mL
20	44	1	50 mg	1 mL
25	55	1	62.5 mg	1.25 mL
30	66	1	75 mg	1.5 mL
35	77	1	87.5 mg	1.75 mL
40	88	1	100 mg	2 mL
45	99	1	112.5 mg	2.25 mL
50	110	1	125 mg	2.5 mL
55	121	1	137.5 mg	2.75 mL
60	132	1	150 mg	3 mL
65	143	1	162.5 mg	3.25 mL
70	154	1	175 mg	3.5 mL
75	165	1	187.5 mg	3.75 mL
80	176	1	200 mg	4 mL
85	187	1	212.5 mg	4.25 mL
90	198	1	225 mg	4.5 mL
95	209	1	237.5 mg	4.75 mL
100	220	1	250 mg	5 mL
105	231	2	262.5 mg	5.25 mL
110	242	2	275 mg	5.5 mL
115	253	2	287.5 mg	5.75 mL
120	264	2	300 mg	6 mL
125	275	2	312.5 mg	6.25 mL
130	286	2	325 mg	6.5 mL
135	297	2	337.5 mg	6.75 mL
140	308	2	350 mg	7 mL
145	319	2	362.5 mg	7.25 mL
150	330	2	375 mg	7.5 mL

\*Calculated using 250-mg vials of RYANODEX® reconstituted with 5 mL of sterile water for injection USP (without a bacteriostatic agent). Labeled dose range of 1 to 10 mg/kg with a maximum cumulative dose of 10 mg/kg. If the physiologic and metabolic abnormalities of MH reappear, repeat RYANODEX® dosing by intravenous push starting with 1 mg/kg.<sup>2</sup>

To calculate volume needed, multiply patient weight in kg by desired dose (minimum dose 1 mg/kg; MHAUS recommends 2.5 mg/kg). Divide the mg dose by 50 for the mL needed.

Please see Important Safety Information on reverse and enclosed full Prescribing Information.



# Designed for speed and efficiency during the critical challenges of an MH crisis

## **Every minute counts in the treatment of MH**<sup>6,7</sup>

Even a 20-minute delay in administration of dantrolene sodium raises the risk of complications by 30%.6

Watch the 4 steps to administration at

Ryanodex111.com

#### Know the signs of MH<sup>8</sup>

Malignant hyperthermia (MH) is characterized by the uncontrolled release of calcium from the sarcoplasmic reticulum into the myoplasm.

- ✓ Increasing end tidal CO₂
- ✓ Tachycardia
- High body temperature

- Rhabdomyolysis
- Hypercarbia
- Hyperkalemia



Speak with a sales representative today Call 855.318.2170 Monday - Friday 8:00 AM - 6:00 PM CST Order NDC #42367-540-32



RYANODEX® is not a substitute for appropriate supportive measures in the treatment of malignant hyperthermia (MH), including discontinuing use of MH-triggering anesthetic agents, managing the metabolic acidosis, instituting cooling when necessary, and administering diuretics to prevent late kidney injury due to myoglobinuria (the amount of mannitol in RYANODEX® is insufficient to maintain diuresis).

RYANODEX® is associated with skeletal muscle weakness such as loss of grip strength and weakness in the legs, as well as drowsiness, dizziness, dysphagia, dyspnea, and decreased inspiratory capacity. Patients should not be permitted to ambulate without assistance until they have normal strength and balance. Care must be taken to prevent extravasation of RYANODEX® into the surrounding tissue due to the high pH of the reconstituted RYANODEX® suspension and potential for tissue necrosis.

#### Please see enclosed full Prescribing Information.

References: 1. Data on file. Eagle Pharmaceuticals, Inc. 2. RYANODEX [package insert]. Woodcliff Lake, NJ: Eagle Pharmaceuticals, Inc. 2014. 3. Dantrium Intravenous [package insert]. Rochester, MI: Par Pharmaceutical Companies, Inc.; 2014. 4. Revonto [package insert]. Louisville, KY: US WorldMeds, LLC; 2014. **5.** Managing an MH crisis. Malignant Hyperthermia Association of the United States website. http://www.mhaus.org/healthcare-professionals/managing-a-crisis. Accessed April 27, 2016. **6.** Riazi S, Larach MG, Hu C, Wijeysundera D, Massey C, Kraeva N. Malignant hyperthermia in Canada: characteristics of index anesthetics in 129 malignant hyperthermi susceptible probands. Anesth Analg. 2014;118(2):381-387. **7.** Brandom BW, Kang A, Sivak EL, Young MC. Update on dantrolene in the treatment of anesthetic induced malignant hyperthermia. SOJ Anesthesiol Pain Manag. 2015;2(2):1-6. **8.** Rosenberg H, Sambuughin N Riazi S, Dirksen R. Malignant Hyperthermia Susceptibility. 2003 [updated 2013]. In: Pagon RA, Adam MP, Ardinger HH, et al, eds. GeneReviews® [Internet]. Seattle (WA): University of Washington, Seattle; 1993-2016.

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at risk

1 vial for most patients

1 provider to reconstitute

1 minute to administer

1 name to remember



For the treatment and prevention of malignant hyperthermia (MH)

**Choose RYANODEX®: designed for rapid** reconstitution and administration

#### **Indications**

RYANODEX® is indicated for the treatment of malignant hyperthermia in conjunction with appropriate supportive measures, and for the prevention of malignant hyperthermia in patients at high risk.

Please see Important Safety Information on back and enclosed full Prescribing Information.



# 4 simple steps to administration in less than 1 minute<sup>1,2</sup>





## Reconstitute

 Add 5 mL of sterile water for injection (without bacteriostatic agent)





#### Shake

- Shake vial to ensure an orange-colored uniform suspension\*
- Should take approximately 10 seconds





# Fill syringe

- Visually inspect the vial for particulate matter and discoloration prior to administration
- Draw the appropriate dose of the reconstituted suspension into the syringe





#### **Administer**

 RYANODEX® (dantrolene sodium) for injectable suspension should be administered by intravenous push

## In an MH crisis, contact the 24-hour MHAUS Hotline at 800.644.9737

\*Must use the contents of the vial within 6 hours after reconstitution. Store reconstituted suspensions at controlled room temperature (68°F to 77°F or 20°C to 25°C).
†Malignant Hyperthermia Association of the United States.

#### **Important Safety Information**

RYANODEX® is not a substitute for appropriate supportive measures in the treatment of malignant hyperthermia (MH), including discontinuing use of MH-triggering anesthetic agents, managing the metabolic acidosis, instituting cooling when necessary, and administering diuretics to prevent late kidney injury due to myoglobinuria (the amount of mannitol in RYANODEX® is insufficient to maintain diuresis).