

## Supplementary Online Content

Nabbout R, Mistry A, Zuberi S, et al; for the FAiRE, DS Study Group. Fenfluramine for treatment-resistant seizures in patients with Dravet syndrome receiving stiripentol-inclusive regimens: a randomized clinical trial. *JAMA Neurol*. Published online December 2, 2019. doi:10.1001/jamaneurol.2019.4113

**eFigure 1.** Study design

**eFigure 2.** Greater Percentage Change in MCSF Over Time in Fenfluramine vs Placebo Treatment Groups

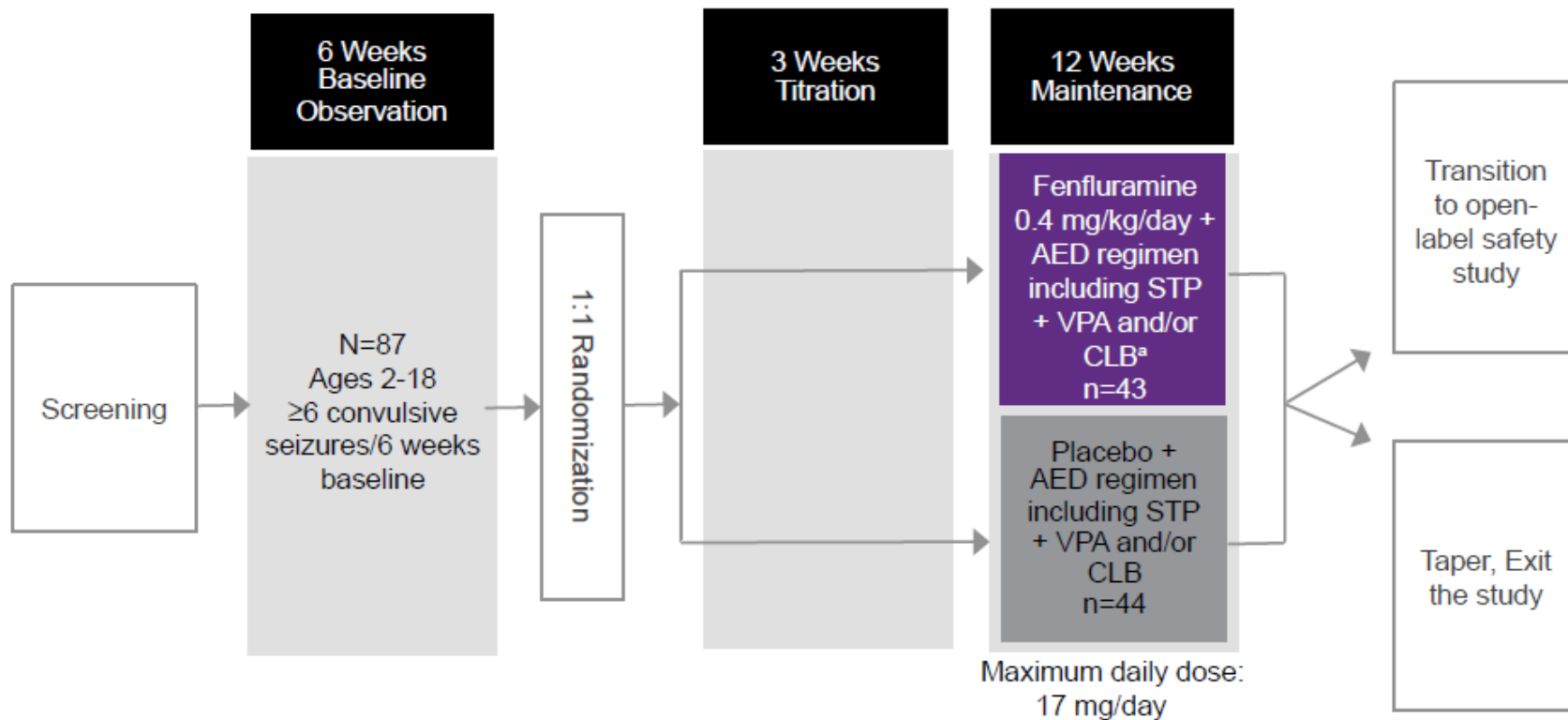
**eFigure 3.** Clinical Global Impression of Improvement

**eTable 1.** Diagnostic Criteria for Inclusion in Trial

**eTable 2.** Titration and Tapering Algorithms

This supplementary material has been provided by the authors to give readers additional information about their work.

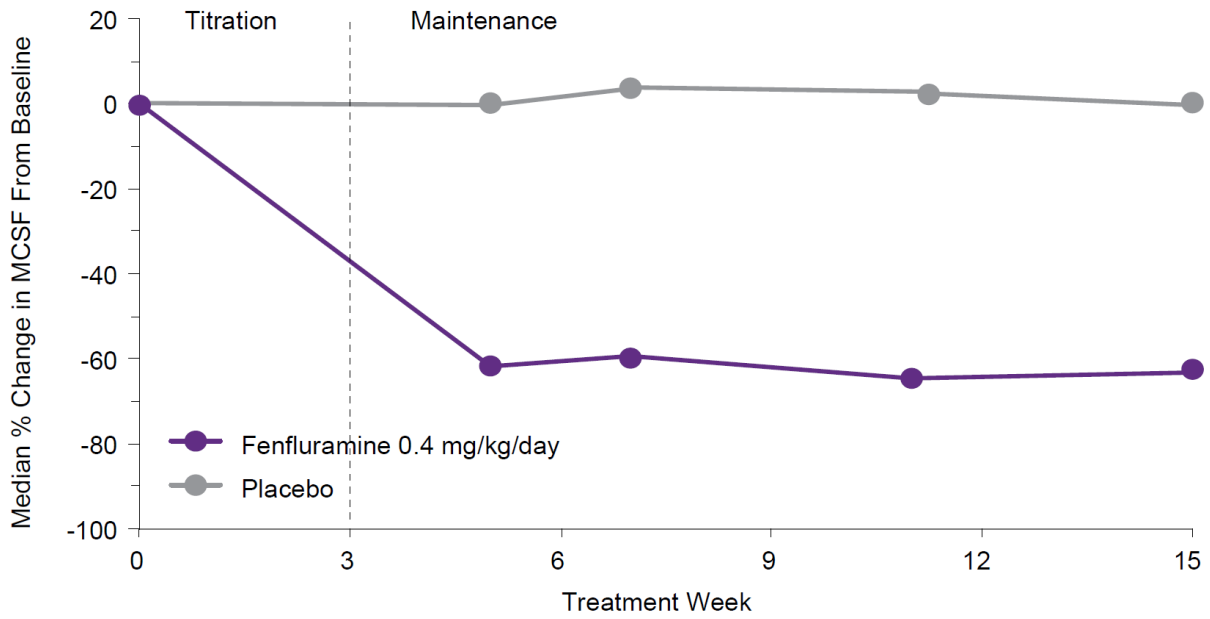
eFigure 1. Study Design



AED, antiepileptic drug; CLB, clobazam; STP, stiripentol; VPA, valproate.

<sup>a</sup>Protocol required, at a minimum, STP plus CLB or VPA. Initially, protocol required STP plus both CLB and VPA, but many patients could not tolerate or would not take the full regimen.

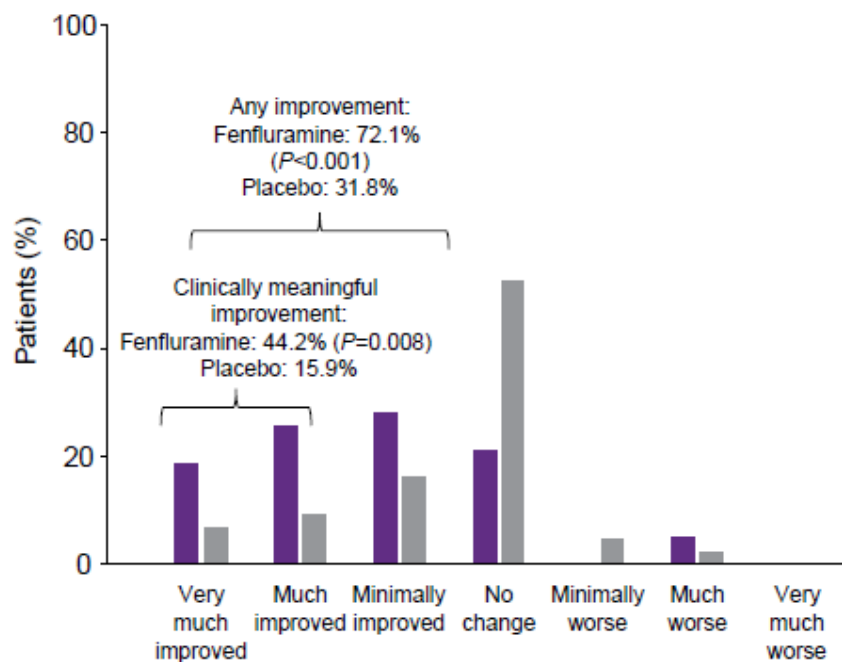
**eFigure 2. Greater Percentage Change in MCSF Over Time in Fenfluramine vs Placebo Treatment Groups**



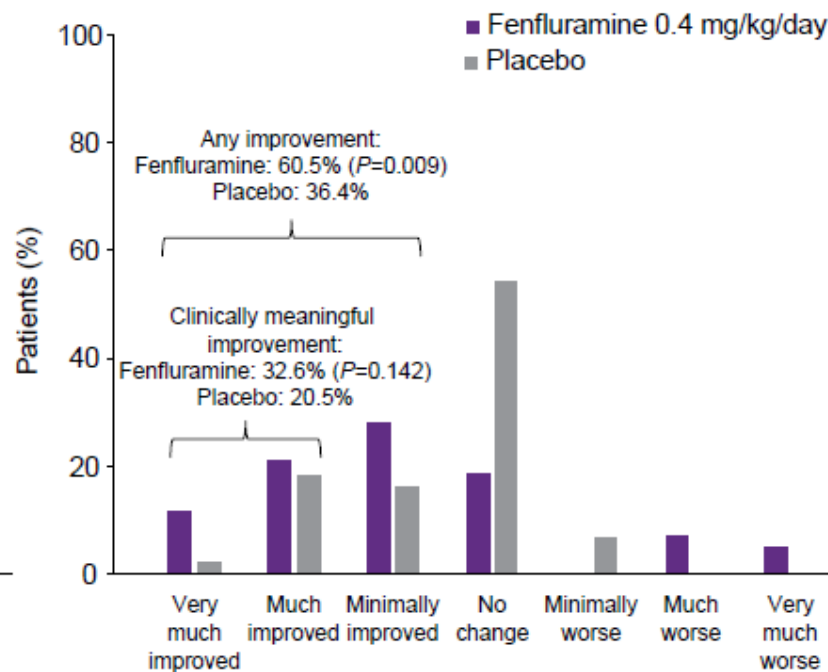
MCSF, monthly convulsive seizure frequency.

**eFigure 3. Clinical Global Impression of Improvement.** Clinically meaningful improvements (Very much improved or Much improved) on Clinical Global Impression (CGI) of patient disposition scored by (A) investigators and (B) parents/caregivers at Visit 12 (combined titration and maintenance periods). CGI, clinical global impression; *P*-values by Cochran-Mantel Haenszel test (placebo vs fenfluramine).

**A. Investigator CGI**



**B. Parent/Caregiver CGI**



**eTable 1. Diagnostic Criteria for Inclusion in Trial**

<b>Inclusion Diagnostic Criteria</b>	
<b>Clinical Diagnosis</b>	Documented medical history to support a clinical diagnosis of Dravet syndrome, where convulsive seizures were not completely controlled by current AED regimen
<b>Patient Meets All of the Following Criteria:</b>	<ol style="list-style-type: none"> <li>1. Onset of seizures in the first year of life in an otherwise healthy infant.</li> <li>2. A history of seizures that were either generalized tonic-clonic or unilateral clonic or bilateral clonic and were prolonged</li> <li>3. Initial development was normal</li> <li>4. History of normal brain magnetic resonance imaging without cortical brain malformation</li> <li>5. Lack of alternative diagnosis</li> </ol>
<b>Patient Meets ≥1 of the Following Criteria:</b>	<ol style="list-style-type: none"> <li>1. Emergence of another seizure type, including myoclonic, generalized tonic-clonic, tonic, atonic, absence and/or focal had developed after the first seizure type</li> <li>2. Prolonged exposure to warm temperatures induces seizures and/or seizures were associated with fevers due to illness or vaccines, hot baths, high levels of activity and sudden temperature changes and/or seizures were induced by strong natural and/or fluorescent lighting, as well as certain visual patterns</li> <li>3. Genetic test results consistent with a diagnosis of Dravet syndrome (pathogenic, likely pathogenic, variant of unknown significance, or inconclusive but unlikely to support an alternative diagnosis)</li> </ol>
<b>Randomization Criteria</b>	
<b>Convulsive Seizures During Baseline</b>	A stable Baseline with ≥ 6 convulsive seizures during the 6-week Baseline, with a ≥2 seizures in the first 3 weeks and ≥2 seizures in the second 3 weeks
<b>Cardiovascular/ Cardiopulmonary</b>	No cardiovascular disease based on ECHO, ECG, or physical examination, including but not limited to trace mitral or aortic valve regurgitation or signs of pulmonary hypertension; approved for study entry by central cardiac reader
<b>Seizure Diary Compliance</b>	Parent/Caregiver was ≥90% compliant with electronic diary completion during baseline
<b>Approval</b>	Approved for study inclusion by Epilepsy Study Consortium

AED, antiepileptic drug; ECG, electrocardiogram; ECHO, echocardiogram.

**eTable 2: Titration and Tapering Algorithms**

	<b>Step 1</b>	<b>Step 2</b>	<b>Step 3</b>
<b>Titration<sup>a,b</sup></b>	<b>Study Days 1-7</b>	<b>Study Days 8-14</b>	<b>Study Days 15-21</b>
Placebo Fenfluramine 0.4 mg/kg/day	Placebo Fenfluramine 0.2 mg/kg/day	Placebo Fenfluramine 0.3 mg/kg/day	Placebo Fenfluramine 0.4 mg/kg/day
<b>Tapering<sup>a</sup></b>	<b>Days 1 to 4 after study completion or early termination</b>	<b>Days 5 to 8 after study completion or early termination</b>	<b>Days 9 to 14 after study completion or early termination</b>
Placebo  Fenfluramine 0.4 mg/kg/day	Placebo  Fenfluramine 0.3 mg/kg/day	Placebo  Fenfluramine 0.2 mg/kg/day	No study drug administration  No study drug administration

BID, twice daily.

<sup>a</sup>Maximum daily dose of fenfluramine, 17 mg.

<sup>b</sup>The dosing regimen, BID for all doses.