

**ANNUAL REPORT ON ELECTROCONVULSIVE THERAPY (ECT) IN VERMONT**  
**Number and Percentage of Post-Treatment Episode Global Improvement Scale (GIS) Scores**  
**July 1, 2017-June 30, 2018 (Fiscal Year 2018)**

	Total Episodes Assessed	GIS Scores							Not Assessed	
		Very much improved	Much improved	Minimally improved	No change	Minimally worse	Much worse	Very much worse		
		- 1 -	- 2 -	- 3 -	- 4 -	- 5 -	- 6 -	- 7 -		- 0 -
<b>Hospital</b>	University of Vermont Medical Center	406	260	59	60	27	0	0	0	1
			64%	15%	15%	7%	0%	0%	0%	0%
	Veterans Administration	108	0	108	0	0	0	0	0	0
			0%	100%	0%	0%	0%	0%	0%	0%
	Central Vermont Medical Center	0	0	0	0	0	0	0	0	7
			NA	NA	NA	NA	NA	NA	NA	100%
<b>Gender</b>	Male	272	112	133	18	9	0	0	0	1
			41%	49%	7%	3%	0%	0%	0%	0%
	Female	242	148	34	42	18	0	0	0	7
			61%	14%	17%	7%	0%	0%	0%	3%
<b>Age</b>	0-17	2	0	0	1	1	0	0	0	0
			0%	0%	50%	50%	0%	0%	0%	0%
	18-21	0	0	0	0	0	0	0	0	0
			NA	NA	NA	NA	NA	NA	NA	NA
	22-34	44	16	12	8	8	0	0	0	0
			36%	27%	18%	18%	0%	0%	0%	0%
	35-49	96	45	39	7	5	0	0	0	0
			47%	41%	7%	5%	0%	0%	0%	0%
	50-64	212	117	59	24	12	0	0	0	8
		55%	28%	11%	6%	0%	0%	0%	4%	
65+	160	82	57	20	1	0	0	0	0	
		51%	36%	13%	1%	0%	0%	0%	0%	
Unknown	0	0	0	0	0	0	0	0	0	
		NA	NA	NA	NA	NA	NA	NA	NA	
<b>Treatment Type</b>	Unilateral Only	332	184	112	23	13	0	0	0	8
			55%	34%	7%	4%	0%	0%	0%	2%
	Bitemporal Only	117	58	36	20	3	0	0	0	0
			50%	31%	17%	3%	0%	0%	0%	0%
	Bilateral Only	0	0	0	0	0	0	0	0	0
			NA	NA	NA	NA	NA	NA	NA	NA
	Bifrontal Only	23	15	5	2	1	0	0	0	0
			65%	22%	9%	4%	0%	0%	0%	0%
	LART Only	12	0	0	5	7	0	0	0	0
			0%	0%	42%	58%	0%	0%	0%	0%
	Other Only	0	0	0	0	0	0	0	0	0
			NA	NA	NA	NA	NA	NA	NA	NA
	Combination	30	3	14	10	3	0	0	0	0
		10%	47%	33%	10%	0%	0%	0%	0%	
<b>Total</b>	<b>514</b>	<b>260</b>	<b>167</b>	<b>60</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	
		<b>51%</b>	<b>32%</b>	<b>12%</b>	<b>5%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>	
			<b>Improved</b>		<b>No Change</b>		<b>Worse</b>			
			487		27		0			
			95%		5%		0.0%			

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**Number and Percentage of Individuals Receiving ECT by Age and Sex**

Hospital	Total	0-17	18-21	22-34	35-49	50-64	65+	F	M
University of Vermont Medical Center Burlington	84	1 1.2%	0 0.0%	11 13.1%	19 22.6%	32 38.1%	21 25.0%	39 46.4%	45 53.6%
Veterans Administration White River Junction	51	0 0.0%	0 0.0%	4 7.8%	12 23.5%	24 47.1%	11 21.6%	3 5.9%	48 94.1%
Central Vermont Medical Center Berlin	1	0 0.0%	0 0.0%	0 0.0%	0 0.0%	1 100.0%	0 0.0%	1 100.0%	0 0.0%
All three hospitals	136	1 0.7%	0 0.0%	15 11.0%	31 22.8%	57 41.9%	32 23.5%	43 31.6%	93 68.4%

**Number and Percentage of ECT Treatments, by Location and Type**

Hospital	Number of Treatments		Inpatient						Outpatient					
	Total	Number of Tx per Person	Unilateral	Bitemporal	Bilateral	Bifrontal	LART	Other	Unilateral	Bitemporal	Bilateral	Bifrontal	LART	Other
University of Vermont Medical Center Burlington	1,619	19.3	269 16.6%	107 6.6%	0 0.0%	8 0.5%	0 0.0%	0 0.0%	912 56.3%	229 14.1%	0 0.0%	46 2.8%	48 3.0%	0 0.0%
Veterans Administration White River Junction	425	8.3	201 47.3%	120 28.2%	0 0.0%	5 1.2%	0 0.0%	0 0.0%	75 17.6%	24 5.6%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Central Vermont Medical Center Berlin	7	7.0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	7 100.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
All three hospitals	2,051	15.1	470 22.9%	227 11.1%	0 0.0%	13 0.6%	0 0.0%	0 0.0%	994 48.5%	253 12.3%	0 0.0%	46 2.2%	48 2.3%	0 0.0%

**Number and Percentage of Individuals Receiving Treatments by Location and Type of Treatment**

Hospital	Total	Inpat. Only	Outpat. Only	Both	Unilateral Only	Bitemporal Only	Bilateral Only	Bifrontal Only	LART Only	Other Only	Combination
University of Vermont Medical Center Burlington	84	13 15.5%	54 64.3%	17 20.2%	50 59.5%	9 10.7%	0 0.0%	4 4.8%	1 1.2%	0 0.0%	20 23.8%
Veterans Administration White River Junction	51	32 62.7%	7 13.7%	12 23.5%	32 62.7%	12 23.5%	0 0.0%	1 2.0%	0 0.0%	0 0.0%	6 11.8%
Central Vermont Medical Center Berlin	1	0 0.0%	1 100.0%	0 0.0%	1 100.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
All three hospitals	136	45 33.1%	62 45.6%	29 21.3%	83 61.0%	21 15.4%	0 0.0%	5 3.7%	1 0.7%	0 0.0%	26 19.1%

**Individuals with Some Degree of Memory Impairment  
By Number of Treatments and Treatment Type**

Hospital	Memory Impairment During FY	Total	Sum of Treatments in Year			Treatment Type Status						
			1-12	13-29	30+	Unilateral Only	Bitemporal Only	Bilateral Only	Bifrontal Only	LART Only	Other Only	Combination
All three hospitals	No	62	50	11	1	41	13	0	2	0	0	6
	Yes	70	34	24	12	40	7	0	3	1	0	19
	Unreported/ Missing	4										

Based on reports from hospitals to the Vermont Department of Mental Health. The reports contain monthly individual-level summaries for each patient.

A 'No' means no memory impairment recorded after any episode of treatment no matter how many episodes occurred throughout the year for each individual who received ECT Treatment. 'Yes' means at least one recorded memory impairment no matter how many episodes of treatment might have occurred for each individual receiving treatment. For example, if one individual received 12 treatments and experienced memory impairment after one treatment but not after the other 11 treatments, this individual would still be recorded as having some degree of memory impairment for the year.

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**Individuals with Some Degree of Memory Impairment**  
**By Number of Treatments and Treatment Type**

Hospital	Memory Impairment During FY	Total	Sum of treatments in Year			Treatment Type Status						
			1-12	13-29	30+	Unilateral Only	Bitemporal Only	Bilateral Only	Bifrontal Only	LART Only	Other Only	Combination
University of Vermont Medical Center Burlington	No	11	6	4	1	9	1	0	1	0	0	0
	Yes	70	34	24	12	40	7	0	3	1	0	19
Veterans Administration White River Junction	No	51	44	7	0	32	12	0	1	0	0	6
	Yes	0	0	0	0	0	0	0	0	0	0	0
Central Vermont Medical Center Berlin	No	0	0	0	0	0	0	0	0	0	0	0
	Yes	0	0	0	0	0	0	0	0	0	0	0
All three hospitals	No	62	50	11	1	41	13	0	2	0	0	6
	Yes	70	34	24	12	40	7	0	3	1	0	19

Based on reports from hospitals to the Vermont Department of Mental Health. The reports contain monthly individual-level summaries for each patient.

A 'No' means no memory impairment recorded after any episode of treatment no matter how many episodes occurred throughout the year for each individual who received ECT Treatment. 'Yes' means at least one recorded memory impairment no matter how many episodes of treatment might have occurred for each individual receiving treatment. For example, if one individual received 12 treatments and experienced memory impairment after one treatment but not after the other 11 treatments, this individual would still be recorded as having some degree of memory impairment for the year.

Hospital	MMSE Baseline Mean	MMSE Follow- Up Mean	MMSE Improvement					
			Improved		Did Not Improve		No Change	
			Number	Percentage	Number	Percentage	Number	Percentage
CVMC	30.0	30.0	0	0.0%	0	0.0%	1	100.0%
UVM-MC	26.4	26.2	14	18.4%	58	76.3%	4	5.3%
VA	18.9	0.0	0	0.0%	0	0.0%	0	0.0%
<b>Total (n= 77)</b>	<b>25.1</b>	<b>18.7</b>	<b>14</b>	<b>18.2%</b>	<b>58</b>	<b>75.3%</b>	<b>5</b>	<b>6.5%</b>

Note: Baseline values are the first reported value for that patient in the reporting period and the "Follow-Up" value are the last reported value for that patient in the reporting period. An improvement constitutes a positive change in score between baseline and follow-up.

Hospital	MADRS Baseline Mean	MADRS Follow- Up Mean	MADRS Improvement					
			Improved		Did Not Improve		No Change	
			Number	Percentage	Number	Percentage	Number	Percentage
CVMC	34.0	14.0	1	100.0%	0	0.0%	0	0.0%
UVM-MC	36.8	19.9	71	95.9%	3	4.1%	0	0.0%
VA	36.0	25.8	32	62.7%	7	13.7%	12	23.5%
<b>Total (n= 126)</b>	<b>35.6</b>	<b>19.9</b>	<b>104</b>	<b>82.5%</b>	<b>10</b>	<b>7.9%</b>	<b>12</b>	<b>9.5%</b>

Note: Baseline values are the first reported value for that patient in the reporting period and the "Follow-Up" value are the last reported value for that patient in the reporting period. An improvement constitutes a positive change in score between baseline and follow-up.

**REPORT ON ELECTROCONVULSIVE THERAPY (ECT) IN VERMONT  
July 1, 2000-June 30, 2018 (Fiscal Years 2001 - 2018)**

**Number of Individuals Receiving ECT by Gender**

Hospital		Fiscal Year (FY)																	
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
University of Vermont Medical Center Burlington	Total	33	43	55	66	79	79	91	87	81	84	92	76	88	98	76	69	59	84
	Male	11	11	17	20	20	26	33	31	29	23	34	32	33	41	23	27	20	45
	Female	22	32	38	46	59	53	58	56	52	61	58	44	55	57	53	42	39	39
Brattleboro Retreat Brattleboro*	Total	0	8	13	6	10	25	30	35	42	22	11	-	-	-	-	-	-	-
	Male	0	1	2	1	2	7	6	15	13	12	5	-	-	-	-	-	-	-
	Female	0	7	11	5	8	18	24	20	29	10	6	-	-	-	-	-	-	-
Veterans Administration** White River Junction	Total	13	16	16	23	18	11	0	0	0	-	-	-	14	51	45	44	48	51
	Male	12	16	14	21	17	9	0	0	0	-	-	-	12	42	42	41	44	48
	Female	1	0	2	2	1	2	0	0	0	-	-	-	2	9	3	3	4	3
Central Vermont Medical Center*** Berlin	Total	-	-	-	-	-	-	-	6	20	25	17	18	7	2	3	1	2	1
	Male	-	-	-	-	-	-	-	2	8	13	6	10	1	0	0	0	1	0
	Female	-	-	-	-	-	-	-	4	12	12	11	8	6	2	3	1	1	1
Total	Total	46	67	84	95	107	115	121	128	143	131	120	94	109	151	124	114	109	136
	Male	23	28	33	42	39	42	39	48	50	48	45	42	46	83	65	68	65	93
	Female	23	39	51	53	68	73	82	80	93	83	75	52	63	68	59	46	44	43

**Number of Treatments and Treatments Per Person**

Hospital		Fiscal Year (FY)																	
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
University of Vermont Medical Center Burlington	Treatments	500	607	783	1,164	1,179	1,080	1,238	1,281	1,121	1,118	1,226	1,017	1,184	1,510	924	1,183	920	1,619
	Treatments / Person	15.2	14.1	14.2	17.6	14.9	13.7	13.6	14.7	13.8	13.3	13.3	13.4	13.5	15.4	12.2	17.1	15.6	19.3
Brattleboro Retreat Brattleboro*	Treatments	244	465	538	419	260	465	350	407	510	209	43	-	-	-	-	-	-	-
	Treatments / Person	--	58.1	41.4	69.8	26.0	18.6	11.7	11.6	12.1	9.5	3.9	-	-	-	-	-	-	-
Veterans Administration** White River Junction	Treatments	88	148	178	302	155	75	0	0	0	-	-	-	46	555	423	440	443	425
	Treatments / Person	6.8	9.3	11.1	13.1	8.6	6.8	-	-	-	-	-	-	3.3	10.9	9.4	10.0	9.2	8.3
Central Vermont Medical Center*** Berlin	Treatments	-	-	-	-	-	-	-	31	214	266	178	124	71	5	18	5	58	7
	Treatments / Person	-	-	-	-	-	-	-	5.2	10.7	10.6	10.5	6.9	10.1	2.5	6.0	5.0	29.0	7.0
Total	Treatments	832	1,220	1,499	1,885	1,594	1,620	1,588	1,719	1,845	1,593	1,447	1,141	1,301	2,070	1,365	1,628	1,421	2,051
	Treatments / Person	18.1	18.2	17.8	19.8	14.9	14.1	13.1	13.4	12.9	12.2	12.1	12.1	11.9	13.7	11.0	14.3	13.0	15.1

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\*Brattleboro Retreat discontinued ECT January 2010. FY2011 data represents a partial year of information.

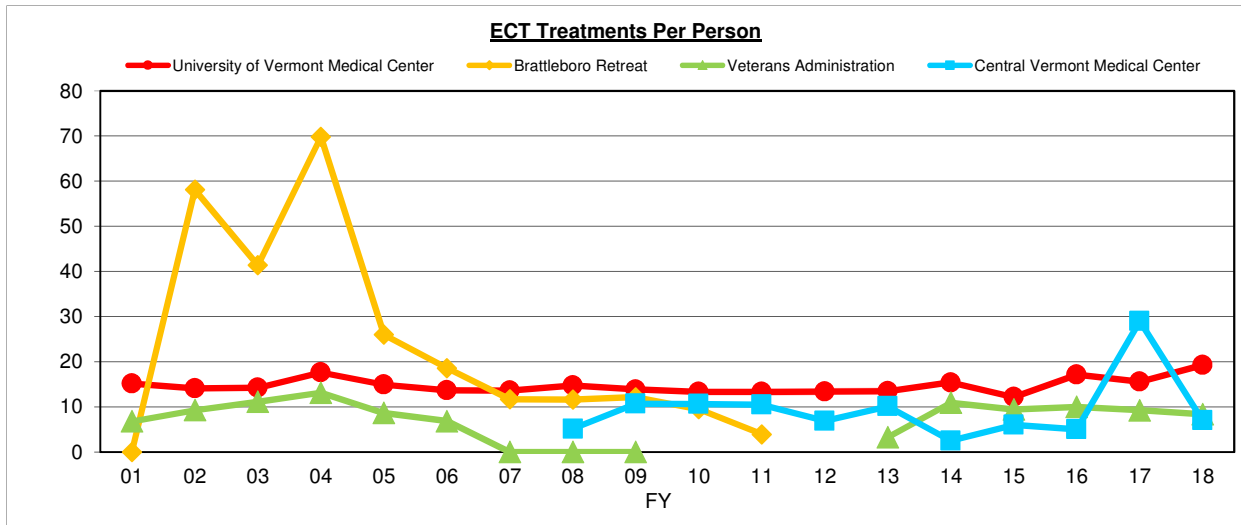
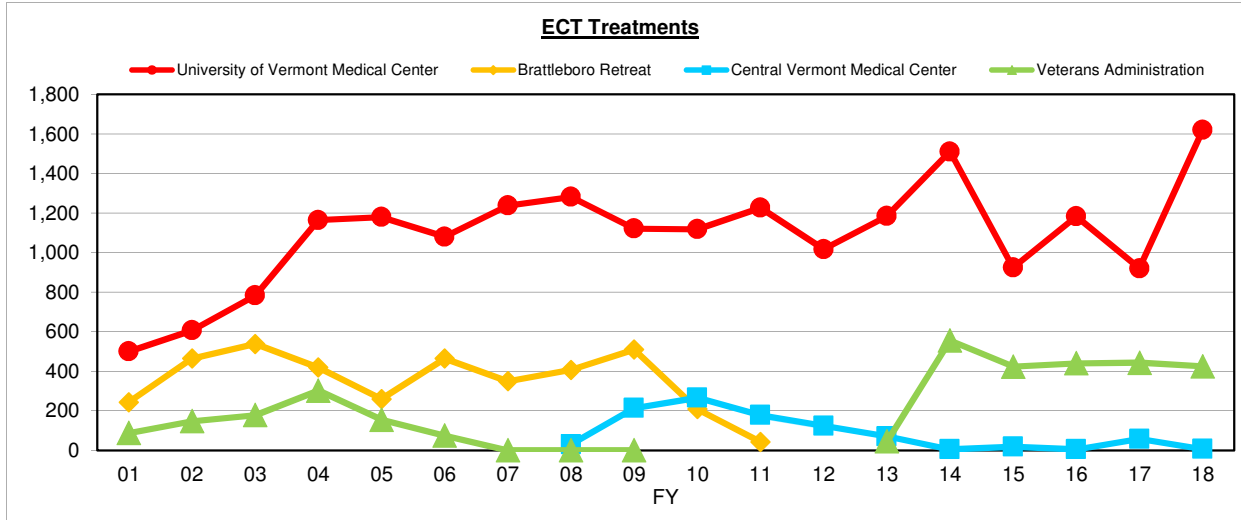
\*\*The Veterans Administration stopped providing data after FY2009 and restarted submitting data in June 2013.

\*\*\*Central Vermont Medical Center did not start providing ECT until April 2008. FY2008 data represents a partial year of information.

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## July 1, 2000-June 30, 2018 (Fiscal Years 2001 - 2018)

### Number of Treatments and Treatments per Person



Based on reports from hospitals to the Vermont Department of Mental Health. The reports contain monthly individual-level summaries for each patient.

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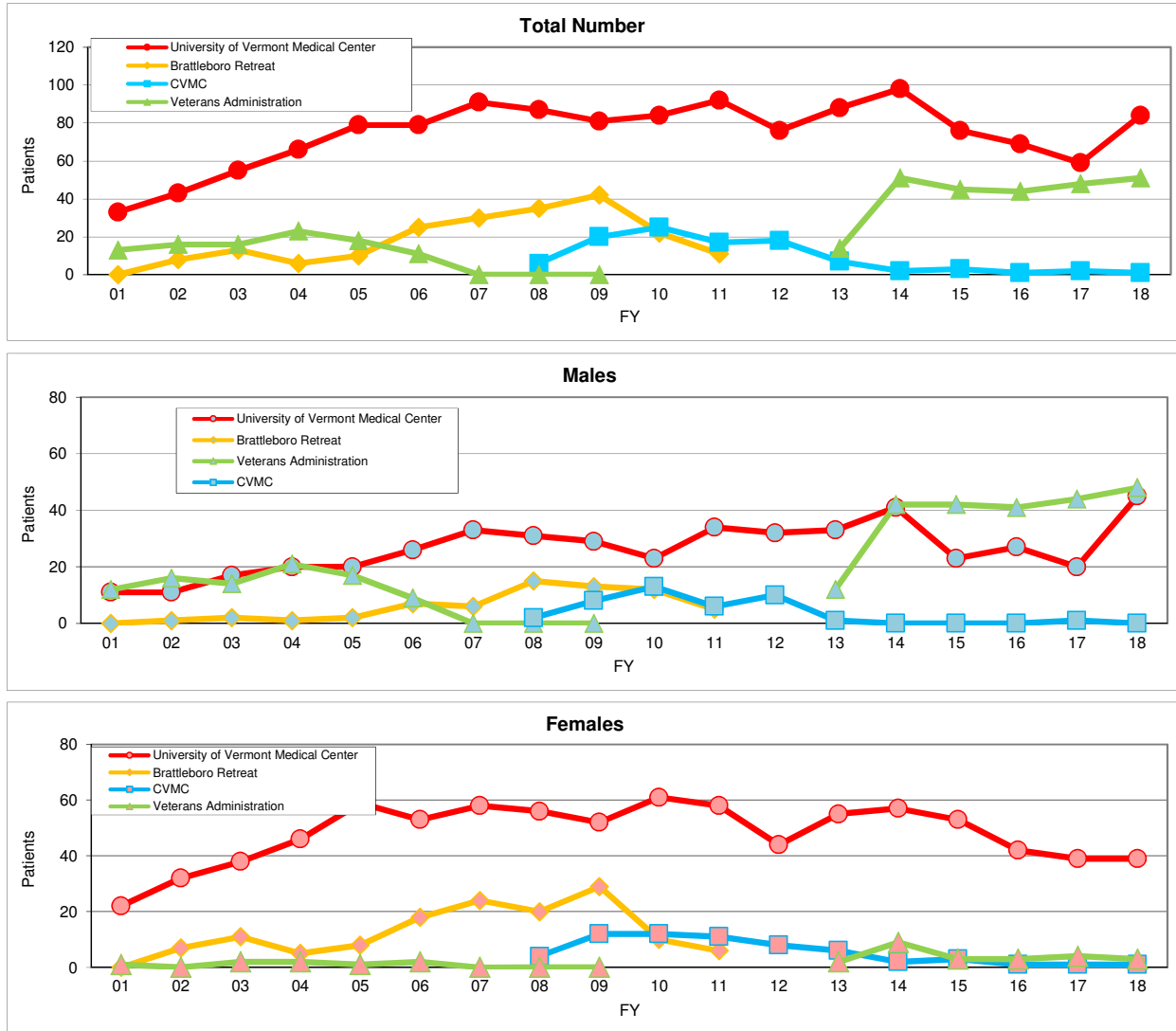
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# REPORT ON ELECTROCONVULSIVE THERAPY (ECT) IN VERMONT

## July 1, 2000-June 30, 2018 (Fiscal Years 2001 - 2018)

### Number of Individuals Receiving ECT Total and by Gender



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