

Table S1

Table S1. Percentage of subjects by ICD-10 ASD classification, CAMH unit and age group (n=634)

CAMH unit	Age group	F84	F84.0	F84.1	F84.5	F84.8	F84.9
A	14-17 yrs	0.0	47.7	6.8	36.4	0.0	9.1
	8-11 yrs	2.5	75.0	0.0	20.0	0.0	2.5
	1-4 yrs	2.3	79.1	2.3	0.0	0.0	16.3
B	14-17 yrs	43.6	33.3	2.6	7.7	2.6	10.3
	8-11 yrs	35.0	35.0	0.0	2.5	2.5	25.0
	1-4 yrs	12.2	48.8	0.0	4.9	2.4	31.7
C	14-17 yrs	0.0	46.2	0.0	7.7	0.0	46.2
	8-11 yrs	2.7	29.7	2.7	8.1	8.1	48.7
	1-4 yrs	8.8	73.5	0.0	0.0	2.9	14.7
D	14-17 yrs	0.0	38.5	2.6	15.4	7.7	35.9
	8-11 yrs	0.0	40.0	2.5	10.0	10.0	37.5
	1-4 yrs	0.0	46.8	4.3	0.0	0.0	48.9
Subtotal (A-D)	14-17 yrs	12.6	40.7	3.7	19.3	3.0	20.7
	8-11 yrs	19.1	45.2	1.3	10.2	5.1	28.0
	1-4 yrs	5.5	61.2	1.8	1.2	1.2	29.1
Subtotal (A-D)	1-17 yrs	12.3	49.7	2.2	9.6	3.1	26.3
E	14-17 yrs	-	-	-	-	-	-
	8-11 yrs	0.0	64.3	2.4	2.4	2.4	28.6
	1-4 yrs	1.8	78.2	1.8	0.0	0.0	18.2
F	14-17 yrs	-	-	-	-	-	-
	8-11 yrs	0.0	72.5	0.0	10.0	0.0	17.5
	1-4 yrs	5.0	92.5	2.5	0.0	0.0	0.0
Total (A-F)	14-17 yrs	-	-	-	-	-	-
	8-11 yrs	6.7	53.1	1.3	8.8	3.8	26.4
	1-4 yrs	4.6	69.6	1.9	0.8	0.8	22.3
Total (A-F)	1-11 yrs	8.4	61.7	1.6	4.6	2.2	24.2

F84: Pervasive developmental disorders; F84.0: Autistic disorder; F84.1: Atypical autism; F84.5: Asperger's syndrome; F84.8: Other pervasive developmental disorders; F84.9: Pervasive developmental disorder, unspecified.

Table S2

Table S2. Percentage of subjects by mental retardation, CAMH unit and age group (n=566*)

CAMH unit	Age group	None	Mild	Moderate	Severe Profound	Other#
A	14-17 yrs	50.0	20.5	13.6	11.4	4.6
	8-11 yrs	37.5	45.0	5.0	2.5	10.0
	1-4 yrs	27.9	39.5	25.6	0.0	7.0
B	14-17 yrs	34.2	26.3	18.4	15.8	5.3
	8-11 yrs	31.6	15.8	23.7	23.7	5.3
	1-4 yrs	96.6	3.5	0.0	0.0	0.0
C	14-17 yrs	10.0	30.0	20.0	40.0	0.0
	8-11 yrs	33.3	13.3	33.3	6.7	13.3
	1-4 yrs	0.0	38.9	11.1	0.0	50.0
D	14-17 yrs	56.4	18.0	20.5	5.1	0.0
	8-11 yrs	72.5	10.0	5.0	2.5	10.0
	1-4 yrs	89.4	0.0	0.0	0.0	10.6
Subtotal (A-D)	14-17 yrs	44.3	22.1	17.6	13.0	3.1
	8-11 yrs	45.9	22.6	13.5	9.0	9.0
	1-4 yrs	59.9	18.2	9.5	0.0	12.4
Subtotal (A-D)	1-17 yrs	50.1	20.9	13.5	7.2	8.2
E	14-17 yrs	-	-	-	-	-
	8-11 yrs	71.8	12.8	10.3	5.1	0.0
	1-4 yrs	65.2	15.2	8.7	10.9	0.0
F	14-17 yrs	-	-	-	-	-
	8-11 yrs	85.0	10.0	0.0	5.0	0.0
	1-4 yrs	15.0	67.5	17.5	0.0	0.0
Total (A-F)	14-17 yrs	-	-	-	-	-
	8-11 yrs	58.0	18.4	10.4	7.5	5.7
	1-4 yrs	52.9	26.5	10.8	2.2	7.6
Total (A-F)	1-11 yrs	55.4	22.5	10.6	4.8	6.7

*Information is not available for 68 (10.7%) children and adolescents (14-17 yrs: n=4; 8-11 yrs: n=27; 1-4 yrs: n=37). #Other and Unspecified intellectual disabilities

Table S3

Table S3. Percentage of subjects by challenging behaviours and Mental retardation, CAMH unit and age group (n=485*)

Challenging behaviours:		Yes	Yes	No	No
Mental retardation:		Yes	No	Yes	No
CAMH unit	Age group	%	%	%	%
A	14-17 yrs	16.3	7.0	34.9	41.9
	8-11 yrs	25.6	5.1	35.9	33.3
	1-4 yrs	12.2	2.4	61.0	24.4
B	14-17 yrs	38.9	13.9	27.8	19.4
	8-11 yrs	45.5	15.2	21.2	18.2
	1-4 yrs	3.7	11.1	0.0	85.2
C	14-17 yrs	62.5	0.0	25.0	12.5
	8-11 yrs	50.0	0.0	8.3	41.7
	1-4 yrs	100.0	0.0	0.0	0.0
D	14-17 yrs	31.8	13.6	27.3	27.3
	8-11 yrs	16.2	21.6	13.5	48.6
	1-4 yrs	4.8	57.1	9.5	28.6
Subtotal (A-D)	14-17 yrs	30.3	10.1	30.3	29.4
	8-11 yrs	30.6	12.4	22.3	34.7
	1-4 yrs	16.3	16.3	27.6	39.8
Subtotal (A-D)	1-17 yrs	26.2	12.8	26.5	34.5
E	14-17 yrs	-	-	-	-
	8-11 yrs	9.1	12.1	18.2	60.6
	1-4 yrs	13.3	4.4	20.0	62.2
F	14-17 yrs	-	-	-	-
	8-11 yrs	10.3	46.2	5.1	38.5
	1-4 yrs	80.0	10.0	5.0	5.0
Total (A-F)	14-17 yrs	-	-	-	-
	8-11 yrs	22.8	19.2	18.1	39.9
	1-4 yrs	29.5	12.0	20.8	37.7
Total (A-F)	1-11 yrs	26.1	15.7	19.4	38.8

*Information on challenging behaviours and/or Mental retardation is not available for 149 (23.5%) children and adolescents (14-17 yrs: n=26; 8-11 yrs: n=46; 1-4 yrs: n=77).

Table S4

Table S4. Significance levels of the comparisons among age groups in each CAMH unit or groups of units

	CAMH units	Age groups:					Age groups:					E	F	A-F
		14-17 vs	8-11 vs	1-4 yrs	8-11 vs	1-4 yrs	A	B	D	C				
Variable	Test	A	B	C	D	A-D	A	B	D	C	E	F	A-F	
Diagnostic category	Fisher p	<0.001	0.031	0.003	0.044	<0.001	0.001	0.139	0.021	<0.001	0.303	<0.001	<0.001	
Mental retardation	Fisher p	0.008	<0.001	<0.001	<0.001	<0.001	0.075	<0.001	0.035	0.003	0.789	<0.001	0.030	
Challenging behaviour & Mental retardation	Fisher p	0.175	<0.001	0.041	0.012	0.114	0.125	<0.001	0.059	0.023	0.664	<0.001	0.163	
Mental health conditions	Fisher p	<0.001	0.008	0.173	0.227	<0.001	<0.001	0.007	0.107	0.096	0.753	<0.001	0.013	
Physical health conditions	Fisher p	0.629	0.023	0.130	0.073	0.180	0.573	0.011	1.000	0.060	0.456	0.237	0.495	
Referrer	Fisher p	<0.001	<0.001	0.032	0.004	<0.001	0.001	<0.001	0.088	0.033	0.420	0.223	<0.001	
Neurodevelopmental concern	Fisher p	0.009	<0.001	0.047	0.051	0.006	0.261	<0.001	0.084	0.032	0.691	0.035	<0.001	
Age at diagnosis	KW p	<0.001	<0.001	<0.001	0.009	<0.001	<0.001	0.004	0.003	<0.001	<0.001	<0.001	<0.001	
Team quality	Fisher p	0.001	0.001	0.004		0.002	0.011	0.008		0.220	0.034	<0.001	0.136	
Standardized tools														
ASD diagnosis	Fisher p	<0.001	0.005	0.001	<0.001	<0.001	0.212	0.002	0.023	<0.001	0.433		<0.001	
Cognitive	Fisher p	0.357	<0.001	0.009	<0.001	<0.001	0.248	0.001	<0.001	0.006	0.009	<0.001	0.001	
Adaptive skills	Fisher p	0.202	<0.001	1.000	<0.001	0.068	1.000	0.002	0.001	1.000	0.256	0.241	0.791	
Psychoeduc. profile	Fisher p	0.066	<0.001	1.000		<0.001		<0.001		1.000	0.476	0.002	0.005	
Laboratory tests														
Aux	Fisher p	0.502	<0.001	0.569	0.046	0.019	0.710	<0.001	0.066	0.420		0.495	0.118	
Eye	Fisher p	1.000	0.009	0.164	0.668	0.074	1.000	0.020	1.000	0.188	1.000	0.401	0.002	
Aud	Fisher p	0.068	0.137	0.942	0.276	0.821	0.066	0.066	0.284	0.783	1.000	0.262	0.139	
Gen	Fisher p	0.020	<0.001	0.592	0.210	0.278	0.139	0.001	0.141	0.602	0.638	0.002	0.170	
Card	Fisher p	0.556	0.475	0.002	0.160	0.003	0.412	0.433	0.099	0.237	1.000	1.000	0.040	
EEG	Fisher p	0.426	1.000	0.586	0.036	0.055	0.290	1.000	0.024	0.386	0.311	0.161	0.007	
EP	Fisher p	0.612	0.090	0.887	1.000	0.659	0.476	0.100		0.707	0.019	<0.001	<0.001	
MRI	Fisher p	0.066	0.734	0.256	0.134	0.090	0.040	0.589	0.063	0.181	1.000	0.263	0.049	
Food	Fisher p	0.612	0.552	1.000	0.612	0.194	0.476	0.446	1.000	1.000	1.000	0.423	0.266	

Met	Fisher p	1.000	0.137	1.000	<0.001	0.059	1.000	0.066	<0.001	1.000		1.000	0.328
Ant	Fisher p	0.187	0.776	0.198	0.332	0.608	0.223	0.504		0.228			0.445
End	Fisher p	1.000	0.066	1.000	0.058	0.056	1.000	0.165	0.622	1.000		0.051	0.001
Written report	Fisher p	0.539		0.495		0.264	0.494			0.429	0.001		0.002
Referral to first visit	KW p		0.500	0.141	0.666	0.925		0.250	0.391	0.238	0.511	0.010	0.063
Referral to first visit (<=90 days)	Fisher p		0.494	0.732	0.741	1.000			0.499	1.000	0.352	0.002	0.004
First visit to diagnosis	KW p	0.276	0.015	0.292	0.024	0.002	0.077	0.212	0.002	0.856	0.790	0.736	0.016
First visit to diagnosis (<=90 days)	Fisher p	0.505	0.002	0.426	0.148	0.063	0.297	0.0920	0.073	0.460	1.000	0.474	0.100
Diagnosis to intervention	KW p	0.339	<0.001	0.526	0.018	<0.001	0.156	0.001	0.006	0.753	0.131	0.655	<0.001
Diagnosis to intervention (<=180 days)	Fisher p	0.405	<0.001	0.673	0.213	<0.001	0.202	<0.001	0.182	0.458	0.147	0.777	<0.001

Significance levels: bold $p \leq 0.05$; bold+italic $0.05 < p \leq 0.10$

Empty cells refer to comparisons where all subjects were classified in one single level of the categorical variable

Abbreviations. Aux: Auxological parameters; Eye: Eye examination; Aud: Audiometric investigation; Gen: Genetic/karyotype investigations; Card: Cardiological examination; EEG: Electroencephalography; EP: Evoked potentials; MRI: Magnetic resonance imaging; Food: Food intolerance; Met: Metabolic investigation; Ant: Quantitative dosage of antibodies; End: Endocrine investigations; Fisher = Fisher's exact probability test; KW = Kruskal-Wallis test.

Table S5

Table S5. Frequency of subjects by laboratory tests characterization, CAMH unit and age group

CAMH unit	Age Group	Aux		Eye		Aud		Gen		Card		EEG		EP		MRI		Food		Met		Ant		End	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
A	14-17 yrs	1	4.6	2	9.1	5	22.7	11	50.0	3	13.6	14	63.6	0	0.0	11	50.0	1	0.0	2	9.1	0	0.0	0	0.0
	8-11 yrs	3	10.0	3	10.0	7	23.3	20	66.7	4	13.3	22	73.3	1	3.3	22	73.3	1	3.3	4	13.3	2	6.7	1	3.3
	1-4 yrs	5	15.2	4	12.1	16	48.5	28	84.9	2	6.1	19	57.6	0	0.0	15	45.5	0	0.0	4	12.1	0	0.0	1	3.0
B	14-17 yrs	16	53.3	15	50.0	15	50.0	15	50.0	20	66.7	26	86.7	7	23.3	12	40.0	3	10.0	15	50.0	1	3.3	17	56.7
	8-11 yrs	12	36.4	14	42.4	18	54.6	15	45.5	17	51.5	28	84.9	9	27.3	13	39.4	6	18.2	15	45.5	2	6.1	15	45.5
	1-4 yrs	21	87.5	3	12.5	7	29.2	1	4.2	15	62.5	21	87.5	12	50.0	12	50.0	2	8.3	17	70.8	0	0.0	6	25.0
C	14-17 yrs	5	50.0	2	20.0	6	60.0	3	30.0	4	40.0	7	70.0	1	10.0	3	30.0	1	10.0	1	10.0	1	10.0	1	10.0
	8-11 yrs	11	37.9	15	51.7	19	65.5	14	48.3	3	10.3	22	75.9	5	17.2	8	27.6	5	17.2	3	10.3	0	0.0	3	10.3
	1-4 yrs	14	51.9	9	33.3	16	59.3	11	40.7	0	0.0	17	63.0	3	11.1	3	11.1	4	14.8	3	11.1	2	7.4	2	7.4
D	14-17 yrs	18	94.7	4	21.1	12	63.2	6	31.6	7	36.8	14	73.7	1	5.3	11	57.9	0	0.0	9	47.4	2	10.5	0	0.0
	8-11 yrs	13	72.2	2	11.1	10	55.6	10	55.6	7	38.9	14	77.8	0	0.0	14	77.8	1	5.6	0	0.0	0	0.0	4	22.2
	1-4 yrs	12	100.0	1	8.3	4	33.3	3	25.0	1	8.3	4	33.3	0	0.0	5	41.7	0	0.0	7	58.3	0	0.0	1	8.3
Subtotal (A-D)	14-17 yrs	40	49.4	23	28.4	38	46.9	35	43.2	34	42.0	61	75.3	9	11.1	37	45.7	5	6.2	27	33.3	4	4.9	18	22.2
	8-11 yrs	39	35.5	34	30.9	54	49.1	59	53.6	31	28.2	86	78.2	15	13.6	57	51.8	13	11.8	22	20.0	4	3.6	23	20.9
	1-4 yrs	52	54.2	17	17.7	43	44.8	43	44.8	18	18.8	61	63.5	15	15.6	35	36.5	6	6.3	31	32.3	2	2.1	10	10.4
E	14-17 yrs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8-11 yrs	0	0.0	0	0.0	5	38.5	11	84.6	0	0.0	0	0.0	1	7.7	2	15.4	0	0.0	0	0.0	0	0.0	0	0.0
	1-4 yrs	0	0.0	1	2.6	13	34.2	34	89.5	1	2.6	5	13.2	17	44.7	7	18.4	1	2.6	0	0.0	0	0.0	0	0.0
F	14-17 yrs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8-11 yrs	5	16.7	19	63.3	19	63.3	10	33.3	11	36.7	22	73.3	5	16.7	10	33.3	0	0.0	6	20.0	0	0.0	10	33.3
	1-4 yrs	6	27.3	11	50.0	10	45.5	17	77.3	8	36.4	20	90.9	16	72.7	11	50.0	1	4.6	5	22.7	0	0.0	2	9.1
Total (A-F)	8-11 yrs	44	28.8	53	34.6	78	51.0	80	52.3	42	27.5	108	70.6	21	13.7	69	45.1	13	8.5	28	18.3	4	2.6	33	21.6
	1-4 yrs	58	37.2	29	18.6	66	42.3	94	60.3	27	17.3	86	55.1	48	30.8	53	34.0	8	5.1	36	23.1	2	1.3	12	7.7
Total (A-D, F)	8-11 yrs	44	31.4	53	37.9	73	52.1	69	49.3	42	30.0	108	77.1	20	14.3	67	47.9	13	9.3	28	20.0	4	2.9	33	23.6
	1-4 yrs	58	49.2	28	23.7	53	44.9	60	50.9	26	22.0	81	68.6	31	26.3	46	39.0	7	5.9	36	30.5	2	1.7	12	10.2

Note. Since participants could list more than one Lab test (multiple answers could be selected), the sum of individual percentages exceeds 100%.

Abbreviations. Aux: Auxological parameters; Eye: Eye examination; Aud: Audiometric investigation; Gen: Genetic/karyotype investigations; Card: Cardiological examination; EEG: Electroencephalography; EP: Evoked potentials; MRI: Magnetic resonance imaging; Food: Food intolerance; Met: Metabolic investigation; Ant: Quantitative dosage of antibodies; End: Endocrine investigations

Table S6

Table S6. Frequency of subjects receiving written assessment report, by CAMH unit and age group

CAMH unit	Age group	Subjects n	Yes n	%
A	14-17 yrs	34	33	97.1
	8-11 yrs	39	38	97.4
	1-4 yrs	40	40	100.0
B	14-17 yrs	33	33	100.0
	8-11 yrs	31	31	100.0
	1-4 yrs	40	40	100.0
C	14-17 yrs	6	5	83.3
	8-11 yrs	6	5	83.3
	1-4 yrs	8	8	100.0
D	14-17 yrs	39	39	100.0
	8-11 yrs	40	40	100.0
	1-4 yrs	47	47	100.0
Subtotal (A-D)	14-17 yrs	112	110	98.2
	8-11 yrs	116	114	98.3
	1-4 yrs	135	135	100.0
E	14-17 yrs	-	-	-
	8-11 yrs	31	21	67.7
	1-4 yrs	51	49	96.1
F	14-17 yrs	-	-	-
	8-11 yrs	40	40	100.0
	1-4 yrs	40	40	100.0
Total (A-F)	8-11 yrs	187	175	93.6
	1-4 yrs	226	224	99.1

Table S7

Table S7. Frequency of subjects with waiting time characterising diagnosis process under the cut-off (referral to first visit ≤ 90 days, first visit to diagnosis ≤ 90 days, diagnosis to intervention ≤ 180 days), by CAMH unit and age group

CAMH units	Age group	<i>referral to first visit</i> (≤ 90 days)		<i>first visit to diagnosis</i> (≤ 90 days)		<i>diagnosis to intervention</i> (≤ 180 days)	
		n/TOT	%	n/TOT	%	n/TOT	%
A	14-17 yrs	-	-	13/35	37.1	8/17	47.1
	8-11 yrs	-	-	9/32	28.1	6/17	35.3
	1-4 yrs	-	-	13/31	41.9	11/19	57.9
B	14-17 yrs	18/19	94.7	17/30	56.7	4/19	21.1
	8-11 yrs	19/19	100.0	24/31	77.4	12/33	36.4
	1-4 yrs	39/39	100.0	37/40	92.5	37/38	97.4
C	14-17 yrs	10/10	100.0	3/12	25.0	5/12	41.7
	8-11 yrs	28/31	90.3	16/34	47.1	16/35	45.7
	1-4 yrs	28/32	90.3	12/33	36.4	11/31	35.5
D	14-17 yrs	29/32	90.6	14/34	41.2	10/28	35.7
	8-11 yrs	31/34	91.2	10/40	25.0	13/36	36.1
	1-4 yrs	35/41	85.4	21/47	44.7	25/47	53.2
Subtotal (A-D)	14-17 yrs	57/61	93.4	47/111	42.3	27/76	35.5
	8-11 yrs	78/102	92.9	59/137	43.1	47/121	38.8
	1-4 yrs	102/111	91.9	83/151	55.0	84/135	62.2
E	14-17 yrs	-	-	-	-	-	-
	8-11 yrs	24/25	96.0	19/24	79.2	2/6	33.3
	1-4 yrs	46/46	100.0	37/46	80.4	16/22	72.7
F	14-17 yrs	-	-	-	-	-	-
	8-11 yrs	20/40	50.0	29/40	72.5	7/17	41.2
	1-4 yrs	34/40	85.0	25/40	62.5	17/37	46.0
Total (A-F)	8-11 yrs	122/149	81.9	107/201	53.2	56/144	38.9
	1-4 yrs	187/197	92.4	145/237	61.2	117/194	60.3