

Supplementary material to

Normalization of puberty and adult height in girls with Turner syndrome: results of the Swedish Growth Hormone trials initiating transition into adulthood

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Suppl Table 1a. Pre-treatment characteristics for the **young** subgroup versus dose in the PP population versus Swedish references {1,2,3,4}.

Variables	Dose 33 µg (n=25)	Dose 67 µg (n=28)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X	20 (80.0%)	15 (53.6%)			
Mosaic	1 (4.0%)	1 (3.6%)			
Other	4 (16.0%)	12 (42.9%)	0.085		
Missing					
At birth					
GA (weeks)	38.7 (1.6) 39 (36; 42) n=24	38.7 (2.0) 39 (35; 42) n=27	1.00	-0.037 (-1.077; 1.000)	0.021
Length (SDS)	-2.48 (1.53) -2.46 (-5; 0.9) n=25	-2.07 (1.16) -2 (-4.34; 0.23) n=28	0.27	-0.416 (-1.151; 0.330)	0.309
Weight (SDS)	-1.50 (1.47) -1.27 (-5.11; 0.37) n=25	-1.28 (1.20) -0.87 (-3.92; 0.18) n=28	0.56	-0.216 (-0.946; 0.532)	0.162
Mother height (SDS)	-0.239 (0.876) -0.341 (-1.504; 0.997) n=25	-0.017 (1.265) -0.142 (-2.078; 2.333) n=28	0.47	-0.222 (-0.835; 0.376)	0.202
Father height (SDS)	-0.228 (0.875) -0.255 (-1.79; 1.434) n=25	-0.303 (1.233) -0.332 (-3.326; 1.398) n=28	0.80	0.075 (-0.502; 0.682)	0.070
MPH (SDS)	-0.290 (0.828) -0.458 (-2.046; 1.185) n=25	-0.199 (1.253) -0.363 (-3.356; 2.066) n=28	0.76	-0.091 (-0.683; 0.499)	0.085
DiffMPH (SDS)	-2.19 (1.76) -2.17 (-5.79; 1.48) n=25	-1.87 (1.29) -1.91 (-4; 0.9) n=28	0.44	-0.325 (-1.163; 0.527)	0.212
At GH-start					
Pre treatment height velocity, the years before (cm/year)	5.46 (1.24) 5.49 (3.41; 8.12) n=25	5.36 (1.30) 5.47 (2.51; 7.41) n=27	0.79	0.091 (-0.620; 0.810)	0.072

For categorical variables n (%) is presented.

For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.

For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables.

The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.

Effect size is absolute difference in mean / pooled SD.

GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.

Suppl Table 1b. Auxology from GH-start for the **young** subgroup versus dose for the **PP** population versus Swedish references {1,2,3,4}.

variabler	Dose 33 µg (n=25)	Dose 67 µg (n=28)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	5.83 (1.41) 5.52 (3.04; 8.61) n=25	5.81 (1.79) 5.74 (3.15; 8.89) n=28	0.98	0.015 (-0.894; 0.921)	0.009
Height_{SDS}	-2.80 (0.73) -2.84 (-3.97; -1.13) n=25	-2.86 (0.81) -2.81 (-5.39; -1.52) n=28	0.77	0.059 (-0.362; 0.496)	0.076
Diff MPH_{SDS}	-2.51 (0.91) -2.35 (-4.12; -0.56) n=25	-2.66 (0.97) -2.52 (-4.5; -1.08) n=28	0.56	0.150 (-0.364; 0.668)	0.160
+ 1 yr All prepubertal					
Average GH dose (µg/kg/day)	35.1 (3.9) 35.5 (25.5; 41.6) n=25	54.3 (6.0) 54.9 (39.4; 66.4) n=28	<.0001	-19.2 (-22.1; -16.4)	3.75
Height_{SDS}	-2.27 (0.74) -2.26 (-3.57; -0.66) n=25	-2.00 (0.79) -1.9 (-4.35; -0.51) n=28	0.22	-0.269 (-0.691; 0.161)	0.349
At puberty start					
Age (yrs)	14.6 (1.2) 14.5 (12.5; 16.9) n=25	12.8 (1.2) 13.1 (10.6; 14.9) n=28	<.0001	1.80 (1.13; 2.44)	1.52
Height_{SDS}	-0.990 (0.769) -0.962 (-2.645; 0.267) n=25	-0.513 (1.026) -0.407 (-3.022; 1.258) n=28	0.067	-0.477 (-0.980; 0.033)	0.521
Diff MPH_{SDS}	-0.700 (0.909) -0.528 (-2.791; 0.798) n=25	-0.314 (1.045) -0.263 (-2.412; 1.794) n=28	0.16	-0.386 (-0.923; 0.159)	0.392
Average GH dose Pre puberty (µg/kg/day)	34.0 (1.7) 33.8 (30.8; 38.4) n=25	58.8 (4.3) 59.5 (46.7; 65.4) n=28	<.0001	-24.8 (-26.6; -22.9)	7.38
Gain in height_{SDS} GH start - Puberty onset	1.81 (0.62) 1.71 (0.61; 3.4) n=25	2.34 (0.79) 2.29 (0.81; 4.38) n=28	0.0086	-0.536 (-0.926; -0.140)	0.747
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 1c Auxology at adult height for the **young** subgroup versus dose in the **PP** population versus the Swedish references [1,2,3,4]..

Variables	Dose 33 µg (n=25)	Dose 67 µg (n=28)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	17.3 (1.2) 17 (15.6; 21.4) n=25	16.3 (1.1) 16.1 (14.7; 19.8) n=28	0.0015	1.06 (0.41; 1.72)	0.891
Adult height (cm)	154.3 (4.9) 155.5 (146; 165.4) n=25	157.0 (6.6) 157.2 (145.1; 168.3) n=28	0.11	-2.67 (-5.95; 0.62)	0.456
Height_{SDS}	-2.18 (0.81) -1.99 (-3.55; -0.36) n=25	-1.74 (1.08) -1.71 (-3.7; 0.12) n=28	0.11	-0.440 (-0.978; 0.102)	0.456
Diff MPH_{SDS}	-1.89 (0.81) -1.84 (-3.58; -0.67) n=25	-1.54 (1.02) -1.51 (-4.07; 0.49) n=28	0.18	-0.349 (-0.858; 0.167)	0.377
Gain in Height_{SDS} Puberty onset - Adult height	-1.19 (0.39) -1.17 (-1.88; -0.57) n=25	-1.22 (0.47) -1.26 (-2.08; -0.54) n=28	0.75	0.037 (-0.200; 0.274)	0.086
Gain in height (cm) Puberty onset - Adult height	3.51 (2.82) 2.8 (-0.2; 10.1) n=25	9.09 (5.44) 7.9 (0.8; 20.5) n=28	<.0001	-5.58 (-7.99; -3.13)	1.27
Average GH dose_{Total} (µg/kg/day)	34.0 (1.8) 33.7 (31; 38.3) n=25	57.9 (4.4) 58 (46.6; 65.9) n=28	<.0001	-23.9 (-25.8; -22.0)	7.02
Time on GH (yrs)	10.4 (1.6) 10.3 (7.2; 12.6) n=25	9.43 (2.02) 9.72 (5.36; 13.87) n=28	0.068	0.944 (-0.072; 1.958)	0.518
Duration puberty (yrs)	2.72 (1.08) 2.68 (0.98; 5.28) n=25	3.45 (1.64) 3.31 (1.02; 9.26) n=28	0.064	-0.735 (-1.507; 0.039)	0.523
Gain in height_{SDS} GH start - Adult height	0.620 (0.679) 0.646 (-0.694; 1.691) n=25	1.12 (0.79) 1 (-0.52; 3.27) n=28	0.016	-0.499 (-0.908; -0.092)	0.672
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 2a. Pre-treatment characteristics for the **old** subgroup versus dose in the PP population versus Swedish references {1,2,3,4}.

Variables	Dose 33 µg (n=23)	Dose 67 µg (n=13)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X					
Mosaic	7 (30.4%)	8 (61.5%)			
Other	1 (4.3%)	0 (0.0%)			
Missing	15 (65.2%)	5 (38.5%)	0.20		
At birth					
GA (weeks)	39.3 (1.5) 39 (36; 42) n=22	38.6 (1.6) 39 (36; 41) n=11	0.31	0.636 (-0.500; 1.778)	0.427
Length (SDS)	-2.11 (1.59) -1.93 (-5.49; 0.97) n=23	-2.13 (1.16) -1.86 (-4.48; -0.35) n=12	0.96	0.028 (-1.001; 1.062)	0.019
Weight (SDS)	-1.69 (1.21) -1.39 (-4.73; 0.42) n=23	-1.27 (1.12) -0.98 (-3.07; 1.41) n=13	0.32	-0.418 (-1.250; 0.416)	0.355
Mother height (SDS)	-0.294 (0.665) -0.182 (-1.456; 1.093) n=23	-0.064 (0.876) -0.182 (-1.775; 1.571) n=13	0.38	-0.230 (-0.756; 0.305)	0.308
Father height (SDS)	-0.083 (0.909) -0.101 (-1.713; 1.818) n=22	0.186 (0.723) 0.144 (-1.023; 1.588) n=13	0.38	-0.269 (-0.858; 0.328)	0.318
MPH (SDS)	-0.273 (0.705) -0.105 (-1.504; 0.873) n=22	0.076 (0.739) 0.001 (-1.547; 1.058) n=13	0.18	-0.349 (-0.855; 0.157)	0.486
DiffMPH (SDS)	-1.84 (1.64) -1.57 (-5.89; 0.96) n=22	-2.34 (1.22) -2.39 (-4.4; -1.03) n=12	0.36	0.504 (-0.597; 1.590)	0.334
At GH-start					
Pre treatment height velocity, the years before (cm/year)	3.62 (0.97) 3.55 (1.48; 5.01) n=23	3.76 (0.65) 3.84 (2.82; 4.5) n=10	0.70	-0.140 (-0.826; 0.517)	0.158
<p>For categorical variables n (%) is presented. For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 2b. Auxology from GH-start for the **old** subgroup versus dose for the **PP** population versus Swedish references {1,2,3,4}.

variabler	Dose 33 µg (n=23)	Dose 67 µg (n=13)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	11.8 (2.0) 11.2 (9; 15.9) n=23	11.4 (1.6) 10.7 (9.2; 14.8) n=13	0.61	0.331 (-0.931; 1.645)	0.179
Height_{SDS}	-2.83 (0.76) -2.74 (-4.43; -1.36) n=23	-2.82 (0.57) -2.93 (-3.96; -1.44) n=13	0.98	-0.007 (-0.490; 0.479)	0.011
Diff MPH_{SDS}	-2.55 (0.80) -2.44 (-3.86; -0.86) n=22	-2.89 (0.81) -2.86 (-4.01; -1.44) n=13	0.22	0.348 (-0.231; 0.920)	0.434
+ 1 yr All prepubertal					
Average GH dose (µg/kg/day)	33.4 (3.3) 33.5 (26.7; 40) n=23	56.5 (4.1) 56.1 (48.2; 62.5) n=13	<.0001	-23.2 (-25.7; -20.6)	6.41
Height_{SDS}	-2.27 (0.79) -2.35 (-3.87; -0.81) n=20	-1.75 (0.61) -1.77 (-2.83; -0.41) n=13	0.058	-0.518 (-1.048; 0.018)	0.714
At puberty start					
Age (yrs)	15.0 (1.6) 15.3 (11.2; 16.8) n=23	14.1 (1.7) 14.4 (11.4; 16.6) n=13	0.12	0.910 (-0.248; 2.025)	0.565
Height_{SDS}	-1.40 (0.52) -1.52 (-2.28; -0.43) n=23	-0.776 (0.607) -0.575 (-1.771; -0.065) n=13	0.0022	-0.624 (-1.023; -0.225)	1.13
Diff MPH_{SDS}	-1.14 (0.79) -1.44 (-2.14; 0.67) n=22	-0.851 (0.679) -0.943 (-1.845; 0.353) n=13	0.29	-0.285 (-0.815; 0.266)	0.378
Average GH dose Pre puberty (µg/kg/day)	33.6 (2.2) 33.1 (29.8; 39.2) n=23	58.9 (4.2) 60 (49.5; 63.4) n=13	<.0001	-25.3 (-27.5; -23.2)	8.29
Gain in height_{SDS} GH start - Puberty onset	1.43 (0.75) 1.55 (0.37; 2.87) n=23	2.04 (0.65) 2.16 (0.86; 2.88) n=13	0.019	-0.616 (-1.117; -0.114)	0.858
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 2c Auxology at adult height for the **old** subgroup versus dose in the PP population versus the Swedish references [1,2,3,4]..

Variables	Dose 33 µg (n=23)	Dose 67 µg (n=13)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	18.3 (1.5) 18.2 (15.9; 23.5) n=23	17.2 (1.3) 17.6 (14.8; 18.9) n=13	0.030	1.05 (0.10; 2.08)	0.741
Adult height (cm)	157.0 (4.1) 156.7 (145.7; 164) n=23	159.4 (3.9) 159.7 (150.4; 165.5) n=13	0.090	-2.44 (-5.34; 0.37)	0.605
Height_{SDS}	-1.75 (0.67) -1.79 (-3.6; -0.59) n=23	-1.35 (0.65) -1.3 (-2.83; -0.34) n=13	0.090	-0.400 (-0.877; 0.061)	0.604
Diff MPH_{SDS}	-1.47 (0.95) -1.53 (-3.92; 0.03) n=22	-1.42 (0.84) -1.44 (-2.71; -0.18) n=13	0.90	-0.043 (-0.686; 0.593)	0.048
Gain in Height_{SDS} Puberty onset - Adult height	-0.349 (0.578) -0.38 (-1.781; 1.321) n=23	-0.573 (0.503) -0.69 (-1.332; 0.24) n=13	0.26	0.223 (-0.160; 0.612)	0.404
Gain in height (cm) Puberty onset - Adult height	7.76 (4.96) 8.2 (1.1; 20) n=23	9.08 (5.14) 6.6 (3.8; 20.1) n=13	0.45	-1.32 (-4.79; 2.26)	0.263
Average GH dose_{Total} (µg/kg/day)	33.4 (1.5) 33.1 (31.2; 36.7) n=23	59.2 (3.6) 60.2 (52.3; 63.4) n=13	<.0001	-25.8 (-27.6; -24.1)	10.4
Time on GH (yrs)	5.37 (1.72) 6.01 (2.69; 8.29) n=23	5.15 (1.24) 5.36 (2.62; 7.14) n=13	0.69	0.223 (-0.893; 1.314)	0.142
Duration puberty (yrs)	3.32 (1.70) 3.43 (0.98; 8.15) n=23	3.18 (0.95) 2.77 (1.99; 5.37) n=13	0.82	0.138 (-0.842; 1.194)	0.093
Gain in height_{SDS} GH start - Adult height	1.08 (0.84) 1.05 (-1.32; 2.39) n=23	1.47 (0.62) 1.52 (-0.19; 2.23) n=13	0.14	-0.393 (-0.941; 0.120)	0.513
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 3a. Pre-treatment characteristics for all girls versus dose in the ITT population, versus Swedish references [1,2,3,4].

Variables	Dose 33 µg (n=67)	Dose 67 µg (n=65)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X	38 (58.5%)	35 (53.8%)			
Mosaic	3 (4.6%)	2 (3.1%)			
Other	24 (36.9%)	28 (43.1%)	0.74		
Missing	2	0			
At birth					
GA (weeks)	39.0 (1.7) 39 (34; 42) n=65	38.4 (2.0) 39 (33; 42) n=62	0.10	0.551 (-0.097; 1.187)	0.301
Length (SDS)	-2.25 (1.42) -2.09 (-5.49; 0.97) n=67	-1.85 (1.18) -1.73 (-4.48; 0.31) n=64	0.082	-0.403 (-0.859; 0.054)	0.308
Weight (SDS)	-1.55 (1.25) -1.3 (-5.11; 0.42) n=67	-1.13 (1.17) -1.04 (-3.92; 1.7) n=65	0.049	-0.424 (-0.838; -0.001)	0.350
Mother height (SDS)	-0.247 (0.821) -0.182 (-2.731; 1.3) n=66	-0.008 (1.117) -0.182 (-2.094; 2.633) n=65	0.17	-0.239 (-0.575; 0.104)	0.244
Father height (SDS)	-0.092 (0.868) -0.066 (-1.79; 1.818) n=64	-0.050 (1.039) 0.144 (-3.326; 1.741) n=65	0.80	-0.042 (-0.373; 0.291)	0.043
MPH (SDS)	-0.218 (0.820) -0.238 (-2.046; 1.863) n=64	-0.036 (1.022) -0.16 (-3.356; 2.066) n=65	0.27	-0.182 (-0.506; 0.141)	0.196
DiffMPH (SDS)	-2.08 (1.58) -1.78 (-5.89; 1.48) n=64	-1.83 (1.33) -1.83 (-4.4; 0.93) n=64	0.33	-0.247 (-0.756; 0.257)	0.169
<p>For categorical variables n (%) is presented. For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 3b. Auxology from GH-start for **all girls** versus dose for the ITT population versus Swedish references {1,2,3,4}.

Variables	Dose 33 µg (n=67)	Dose 67 µg (n=65)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	8.84 (3.48) 9 (3.04; 15.87) n=67	7.29 (3.04) 6.96 (3.07; 14.77) n=65	0.0088	1.55 (0.41; 2.67)	0.475
Height _{SDS}	-2.79 (0.77) -2.78 (-4.43; -1.13) n=67	-2.79 (0.67) -2.79 (-5.39; -1.44) n=65	0.96	0.007 (-0.240; 0.250)	0.009
Diff MPH _{SDS}	-2.54 (0.86) -2.4 (-4.23; -0.56) n=64	-2.76 (0.87) -2.73 (-4.5; -1.08) n=65	0.15	0.220 (-0.081; 0.520)	0.254
+ 1 yr All prepubertal					
Average GH dose (µg/kg/day)	34.8 (4.8) 34.2 (25.5; 61) n=67	54.7 (7.2) 56.1 (28; 71.4) n=65	<.0001	-19.9 (-22.0; -17.8)	3.27
Height _{SDS}	-2.31 (0.75) -2.29 (-3.87; -0.66) n=61	-1.88 (0.68) -1.8 (-4.35; -0.41) n=65	0.0010	-0.427 (-0.676; -0.173)	0.600
At puberty start					
Age (yrs)	14.9 (1.4) 15 (11.2; 18) n=67	13.4 (1.6) 13.7 (9.1; 16.8) n=65	<.0001	1.58 (1.07; 2.10)	1.07
Height _{SDS}	-1.29 (0.83) -1.36 (-3.43; 0.27) n=67	-0.514 (0.897) -0.41 (-3.022; 1.258) n=65	<.0001	-0.772 (-1.069; -0.477)	0.894
Diff MPH _{SDS}	-1.07 (1.01) -1.22 (-3.39; 0.8) n=64	-0.478 (1.008) -0.504 (-2.412; 1.829) n=65	0.0007	-0.592 (-0.944; -0.243)	0.588
Average GH dose Pre puberty (µg/kg/day)	34.4 (2.9) 33.8 (29.8; 46.7) n=65	57.2 (5.9) 58.2 (37.7; 68.9) n=65	<.0001	-22.8 (-24.4; -21.2)	4.89
Gain in height _{SDS} GH start - Puberty onset	1.50 (0.80) 1.54 (0; 3.43) n=67	2.28 (0.73) 2.26 (0.81; 4.38) n=65	<.0001	-0.778 (-1.041; -0.516)	1.02
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 3c Auxology at adult height for all girls versus dose in the ITT population versus the Swedish references {1,2,3,4}

Variables	Dose 33 µg (n=67)	Dose 67 µg (n=65)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	17.9 (1.7) 17.5 (15.6; 25.9) n=67	16.4 (1.2) 16.4 (13.4; 19.8) n=65	<.0001	1.44 (0.92; 1.96)	0.948
Adult height (cm)	155.1 (5.4) 155.7 (143.7; 169.2) n=67	158.0 (5.4) 158.1 (145.1; 168.3) n=65	0.0026	-2.82 (-4.66; -1.00)	0.524
Height_{SDS}	-2.05 (0.89) -1.96 (-3.93; 0.27) n=67	-1.58 (0.88) -1.56 (-3.7; 0.12) n=65	0.0026	-0.464 (-0.767; -0.165)	0.524
Diff MPH_{SDS}	-1.84 (0.98) -1.84 (-4.53; 0.03) n=64	-1.55 (0.89) -1.64 (-4.07; 0.49) n=65	0.071	-0.299 (-0.625; 0.028)	0.320
Gain in Height_{SDS} Puberty onset - Adult height	-0.761 (0.665) -0.79 (-1.878; 1.626) n=67	-1.07 (0.65) -1.11 (-2.63; 0.66) n=65	0.0096	0.308 (0.082; 0.534)	0.468
Gain in height (cm) Puberty onset - Adult height	5.23 (4.72) 3.7 (-0.2; 21.1) n=67	8.10 (5.95) 6.2 (0; 26.8) n=65	0.0033	-2.87 (-4.74; -1.00)	0.536
Average GH dose_{Total} (µg/kg/day)	34.7 (3.6) 33.7 (30.3; 48.1) n=67	55.8 (6.4) 56.4 (37.3; 69.1) n=65	<.0001	-21.1 (-22.8; -19.3)	4.08
Time on GH (yrs)	7.66 (3.07) 7.26 (1.99; 13.02) n=67	8.22 (2.62) 8.03 (2.62; 13.87) n=65	0.27	-0.556 (-1.546; 0.436)	0.195
Duration puberty (yrs)	2.94 (1.55) 2.7 (0.61; 8.7) n=67	3.08 (1.44) 3.05 (0; 9.26) n=65	0.58	-0.144 (-0.661; 0.378)	0.096
Gain in height_{SDS} GH start - Adult height	0.741 (0.825) 0.694 (-1.32; 2.664) n=67	1.21 (0.71) 1.24 (-0.52; 3.27) n=65	0.0006	-0.470 (-0.740; -0.206)	0.609

For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.
For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables.
The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.
Effect size is absolute difference in mean / pooled SD.
GH, growth hormone; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.

Suppl Table 4a. Pre-treatment characteristics for all GH versus age group at GH-start in ITT population versus the Swedish references {1,2,3,4}.

Variables	GH-start 3- <9 (n=79)	GH-start 9- (n=53)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X	50 (64.9%)	23 (43.4%)			
Mosaic	3 (3.9%)	2 (3.8%)			
Other	24 (31.2%)	28 (52.8%)	0.038		
Missing	2	0			
At birth					
GA (weeks)	38.5 (2.0) 39 (33; 42) n=77	39.0 (1.6) 39 (34; 42) n=50	0.19	-0.454 (-1.115; 0.207)	0.247
Length (SDS)	-2.14 (1.31) -2.09 (-5; 0.9) n=79	-1.92 (1.33) -1.73 (-5.49; 0.97) n=52	0.36	-0.220 (-0.685; 0.251)	0.167
Weight (SDS)	-1.33 (1.32) -1.23 (-5.11; 1.7) n=79	-1.36 (1.09) -1.2 (-4.73; 1.41) n=53	0.88	0.032 (-0.400; 0.469)	0.026
Mother height (SDS)	-0.092 (1.103) -0.182 (-2.731; 2.633) n=79	-0.183 (0.771) -0.182 (-1.775; 1.73) n=52	0.60	0.091 (-0.252; 0.440)	0.092
Father height (SDS)	-0.169 (1.014) -0.03 (-3.326; 1.741) n=79	0.084 (0.838) 0.052 (-1.79; 1.818) n=50	0.15	-0.253 (-0.590; 0.088)	0.266
MPH (SDS)	-0.162 (1.021) -0.238 (-3.356; 2.066) n=79	-0.069 (0.766) -0.038 (-1.547; 1.775) n=50	0.58	-0.093 (-0.429; 0.238)	0.100
DiffMPH (SDS)	-1.98 (1.50) -2.02 (-5.79; 1.48) n=79	-1.92 (1.39) -1.71 (-5.89; 0.96) n=49	0.85	-0.053 (-0.579; 0.473)	0.037
<p>For categorical variables n (%) is presented. For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 4b. Auxology from GH-start for all GH versus age group at GH-start in the ITT population versus the Swedish references {1,2,3,4}.

Variables	GH-start 3- <9 (n=79)	GH-start 9- (n=53)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	5.74 (1.64) 5.52 (3.04; 8.9) n=79	11.6 (1.9) 10.9 (9; 15.9) n=53	<.0001	-5.82 (-6.43; -5.20)	3.34
Height_{SDS}	-2.78 (0.74) -2.78 (-5.39; -1.13) n=79	-2.81 (0.69) -2.84 (-4.43; -1.36) n=53	0.85	0.026 (-0.228; 0.274)	0.036
Diff MPH_{SDS}	-2.62 (0.92) -2.59 (-4.5; -0.56) n=79	-2.70 (0.78) -2.58 (-4.01; -0.86) n=50	0.62	0.080 (-0.234; 0.394)	0.092
+ 1 yr All prepubertal					
Average GH dose_{Year 1} (µg/kg/day)	46.3 (11.3) 48.2 (25.5; 66.4) n=79	41.9 (11.8) 35.8 (26.7; 71.4) n=53	0.031	4.45 (0.43; 8.49)	0.386
Height_{SDS}	-2.08 (0.74) -2.07 (-4.35; -0.51) n=79	-2.10 (0.75) -2.1 (-3.87; -0.41) n=47	0.86	0.024 (-0.252; 0.294)	0.032
At puberty start					
Age (yrs)	13.7 (1.6) 13.9 (9.1; 16.9) n=79	14.8 (1.7) 15.2 (11.2; 18) n=53	0.0003	-1.06 (-1.62; -0.50)	0.665
Height_{SDS}	-0.705 (0.987) -0.649 (-3.184; 1.258) n=79	-1.20 (0.79) -1.17 (-3.43; 0.3) n=53	0.0029	0.499 (0.175; 0.821)	0.546
Diff MPH_{SDS}	-0.543 (1.095) -0.477 (-3.394; 1.829) n=79	-1.13 (0.86) -1.37 (-3.02; 0.68) n=50	0.0014	0.590 (0.230; 0.957)	0.584
Average GH dose Pre puberty (µg/kg/day)	47.6 (11.9) 52 (30.3; 65.4) n=79	43.0 (12.6) 35.7 (29.8; 68.9) n=51	0.039	4.57 (0.23; 8.93)	0.375
Gain in Height_{SDS} GH start - Puberty onset	2.07 (0.78) 2.15 (0.48; 4.38) n=79	1.60 (0.89) 1.71 (0; 3.43) n=53	0.0026	0.472 (0.179; 0.766)	0.572
For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.					

Suppl Table 4c. Auxology at adult height for **all GH** versus age group at GH-start in the ITT population versus the Swedish references {1,2,3,4}.

Variables	GH-start 3- <9 (n=79)	GH-start 9- (n=53)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	16.6 (1.3) 16.5 (13.4; 21.4) n=79	18.0 (1.8) 17.8 (14.8; 25.9) n=53	<.0001	-1.41 (-1.93; -0.86)	0.917
Adult height (cm)	155.7 (5.8) 155.7 (143.7; 168.3) n=79	157.7 (4.9) 158.1 (144; 169.2) n=53	0.042	-2.00 (-3.93; -0.09)	0.364
Height_{SDS}	-1.95 (0.96) -1.96 (-3.93; 0.12) n=79	-1.62 (0.80) -1.56 (-3.88; 0.27) n=53	0.042	-0.328 (-0.647; -0.015)	0.365
Diff MPH_{SDS}	-1.79 (0.97) -1.77 (-4.53; 0.49) n=79	-1.55 (0.89) -1.72 (-3.92; 0.03) n=50	0.16	-0.240 (-0.577; 0.100)	0.255
Gain in height_{SDS} Puberty onset - Adult height	-1.24 (0.50) -1.31 (-2.63; 0) n=79	-0.417 (0.598) -0.49 (-1.781; 1.626) n=53	<.0001	-0.827 (-1.017; -0.638)	1.54
Gain in height (cm) Puberty onset - Adult height	5.82 (5.08) 4.6 (-0.2; 23.3) n=79	7.87 (6.00) 5.6 (0.9; 26.8) n=53	0.039	-2.05 (-3.96; -0.11)	0.375
Average GH dose_{Total} (µg/kg/day)	46.6 (11.3) 48.1 (30.3; 65.9) n=79	42.9 (12.2) 36.1 (30.4; 69.1) n=53	0.071	3.77 (-0.32; 7.85)	0.324
Time on GH (yrs)	9.75 (1.97) 9.9 (5.3; 13.87) n=79	5.22 (1.50) 5.44 (1.99; 8.29) n=53	<.0001	4.53 (3.90; 5.16)	2.52
Duration puberty (yrs)	2.87 (1.40) 2.78 (0; 9.26) n=79	3.22 (1.61) 3.21 (0.61; 8.7) n=53	0.20	-0.344 (-0.858; 0.183)	0.231
Gain in height_{SDS} GH start - Adult height	0.830 (0.759) 0.817 (-0.694; 3.269) n=79	1.18 (0.83) 1.48 (-1.32; 2.66) n=53	0.014	-0.354 (-0.630; -0.076)	0.450

For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.
For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables.
The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.
Effect size is absolute difference in mean / pooled SD.
AH, adult height; GH, growth hormone; ns, not significant; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.

Suppl Table 5. Growth from birth to adult height for **all GH** versus age group at GH-start and dose in the **PP** population; expressed in SDS versus Turner reference [5,6]

Variables	Group									
	GH-start 3- <9					GH-start 9-				
	Dose 33 µg	Dose 67 µg	p-value	Difference between groups Mean (95% CI)	Effect Size	Dose 33 µg	Dose 67 µg	p-value	Difference between groups Mean (95% CI)	Effect Size
	n=25	n=28				n=23	n=13			
At birth										
Length SDS	-0.520 (1.007) -0.24 (-2.64; 0.96) n=25	-0.261 (0.921) -0.04 (-2.24; 1.76) n=28	0.36	-0.259 (-0.786; 0.282)	0.269	-0.110 (0.839) -0.24 (-2.24; 1.36) n=23	-0.307 (1.007) -0.04 (-2.24; 0.96) n=12	0.57	0.197 (-0.457; 0.844)	0.219
At GH start										
Height SDS	-0.272 (0.783) -0.264 (-1.545; 1.479) n=25	-0.323 (0.978) -0.28 (-3.145; 1.449) n=28	0.83	0.051 (-0.433; 0.555)	0.058	0.169 (0.950) 0.176 (-1.804; 2.003) n=23	0.157 (0.695) -0.023 (-0.95; 1.933) n=13	0.96	0.012 (-0.586; 0.619)	0.014
+ 1 year All prepubertal										
Height_{SDS}	0.431 (0.803) 0.412 (-0.976; 2.159) n=25	0.749 (0.979) 0.884 (-1.853; 2.737) n=28	0.21	-0.318 (-0.810; 0.186)	0.353	0.848 (0.960) 0.708 (-1.062; 2.609) n=20	1.45 (0.70) 1.43 (0.39; 3.05) n=13	0.067	-0.598 (-1.231; 0.047)	0.687
At puberty start										
Height SDS	2.41 (0.82) 2.43 (0.75; 3.77) n=25	2.89 (1.19) 2.97 (-0.1; 4.92) n=28	0.10	-0.477 (-1.048; 0.098)	0.462	1.96 (0.58) 1.85 (1.08; 3.02) n=23	2.61 (0.70) 2.86 (1.37; 3.42) n=13	0.0052	-0.649 (-1.098; -0.200)	1.04
At adult height										
Height SDS	1.94 (0.93) 1.84 (0.11; 3.62) n=25	2.73 (1.09) 2.88 (0.77; 4.86) n=28	0.0085	-0.793 (-1.362; -0.221)	0.779	2.11 (0.50) 2.22 (0.92; 2.9) n=23	2.78 (0.52) 3 (1.78; 3.41) n=13	0.0005	-0.675 (-1.043; -0.315)	1.32
Gain in height										
Gain in height SDS	2.68 (0.67) 2.57 (1.54; 4.48) n=25	3.21 (0.87) 3.14 (1.74; 5.3) n=28	0.018	-0.528 (-0.955; -0.094)	0.675	1.79 (0.96) 1.97 (0.43; 3.55) n=23	2.45 (0.80) 2.64 (1.08; 3.42) n=13	0.041	-0.661 (-1.291; -0.030)	0.732
GH start - Puberty onset										
Gain in Height SDS	-0.474 (0.297) -0.479 (-1.202; -0.109) n=25	-0.158 (0.463) -0.196 (-1.147; 0.867) n=28	0.0045	-0.316 (-0.533; -0.099)	0.802	0.150 (0.412) 0.121 (-0.59; 1.242) n=23	0.176 (0.379) 0.248 (-0.293; 1.002) n=13	0.84	-0.026 (-0.302; 0.258)	0.064
Puberty onset - Adult height										
Gain in height SDS	2.21 (0.73) 2.3 (0.69; 3.44) n=25	3.05 (0.78) 2.99 (1.47; 4.78) n=28	0.0002	-0.844 1.260; -0.428)	1.12	1.94 (0.90) 2.1 (0.1; 3.58) n=23	2.63 (0.65) 2.57 (1.41; 3.63) n=13	0.020	-0.687 (-1.263; -0.117)	0.835
GH start - Adult height										

For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.
 For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables.
 The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.
 Effect size is absolute difference in mean / pooled SD.
 AH, adult height; GH, growth hormone; SDS, standard deviation score.

Suppl Table 6a. Pre-treatment characteristics for **all girls** versus dose in the PP population, versus the Swedish references [1,2,3,4]

Variables	Dose 33 µg (n=48)	Dose 67 µg (n=41)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X	27 (56.3%)	23 (56.1%)			
Mosaic	2 (4.2%)	1 (2.4%)			
Other	19 (39.6%)	17 (41.5%)	1.00		
Missing	0	0			
At birth	39.0 (1.5) 39 (36; 42) n=46	38.7 (1.8) 39 (35; 42) n=38	0.50	0.272 (-0.471; 1.000)	0.162
GA (weeks)	-2.30 (1.56) -2.21 (-5.49; 0.97) n=48	-2.09 (1.14) -1.94 (-4.48; 0.23) n=40	0.48	-0.215 (-0.812; 0.381)	0.155
Length (SDS)	-1.59 (1.34) -1.35 (-5.11; 0.42) n=48	-1.28 (1.16) -0.98 (-3.92; 1.41) n=41	0.26	-0.311 (-0.845; 0.225)	0.247
Weight (SDS)	-0.265 (0.774) -0.261 (-1.504; 1.093) n=48	-0.032 (1.145) -0.182 (-2.078; 2.333) n=41	0.25	-0.233 (-0.646; 0.175)	0.242
Mother height (SDS)	-0.160 (0.884) -0.255 (-1.79; 1.818) n=47	-0.148 (1.112) -0.101 (-3.326; 1.588) n=41	0.95	-0.012 (-0.434; 0.407)	0.012
Father height (SDS)	-0.282 (0.765) -0.444 (-2.046; 1.185) n=47	-0.112 (1.114) -0.238 (-3.356; 2.066) n=41	0.39	-0.170 (-0.577; 0.226)	0.181
MPH (SDS)	-2.03 (1.70) -1.71 (-5.89; 1.48) n=47	-2.01 (1.28) -2.03 (-4.4; 0.9) n=40	0.96	-0.016 (-0.676; 0.628)	0.011

For categorical variables n (%) is presented.
For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.
For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables.
The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.
Effect size is absolute difference in mean / pooled SD.
GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.

Suppl Table 6b. Auxology from GH-start for **all girls** versus dose in the **PP** population versus the Swedish references [1,2,3,4].

Variables	Dose 33 µg (n=48)	Dose 67 µg (n=41)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	8.67 (3.43) 8.59 (3.04; 15.87) n=48	7.59 (3.15) 7.17 (3.15; 14.77) n=41	0.12	1.07 (-0.34; 2.45)	0.325
Height_{SDS}	-2.81 (0.74) -2.81 (-4.43; -1.13) n=48	-2.84 (0.74) -2.93 (-5.39; -1.44) n=41	0.82	0.033 (-0.278; 0.342)	0.045
Diff MPH_{SDS}	-2.53 (0.85) -2.38 (-4.12; -0.56) n=47	-2.73 (0.92) -2.68 (-4.5; -1.08) n=41	0.26	0.207 (-0.163; 0.581)	0.235
+ 1 yr All prepubertal					
Average GH dose (µg/kg/day)	34.3 (3.7) 34.5 (25.5; 41.6) n=48	55.0 (5.5) 55.5 (39.4; 66.4) n=41	<.0001	-20.8 (-22.7; -18.8)	4.48
Height_{SDS}	-2.27 (0.76) -2.29 (-3.87; -0.66) n=45	-1.92 (0.74) -1.8 (-4.35; -0.41) n=41	0.034	-0.348 (-0.669; -0.028)	0.464
At puberty start					
Age (yrs)	14.8 (1.4) 14.8 (11.2; 16.9) n=48	13.2 (1.5) 13.3 (10.6; 16.6) n=41	<.0001	1.58 (0.97; 2.18)	1.11
Height_{SDS}	-1.19 (0.69) -1.17 (-2.65; 0.27) n=48	-0.596 (0.915) -0.417 (-3.022; 1.258) n=41	0.0012	-0.590 (-0.929; -0.252)	0.737
Diff MPH_{SDS}	-0.904 (0.876) -1.045 (-2.791; 0.798) n=47	-0.484 (0.969) -0.364 (-2.412; 1.794) n=41	0.036	-0.420 (-0.805; -0.028)	0.456
Average GH dose Pre puberty (µg/kg/day)	33.8 (1.9) 33.5 (29.8; 39.2) n=48	58.8 (4.2) 59.6 (46.7; 65.4) n=41	<.0001	-25.0 (-26.4; -23.7)	7.80
Gain in height_{SDS} GH start - Puberty onset	1.62 (0.71) 1.68 (0.37; 3.4) n=48	2.25 (0.75) 2.21 (0.81; 4.38) n=41	0.0002	-0.623 (-0.930; -0.311)	0.854
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 6c Auxology at adult height for all girls versus dose in the PP population versus the Swedish references [1,2,3,4]..

Variables	Dose 33 µg (n=48)	Dose 67 µg (n=41)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	17.8 (1.4) 17.5 (15.6; 23.5) n=48	16.6 (1.3) 16.4 (14.7; 19.8) n=41	<.0001	1.21 (0.64; 1.79)	0.894
Adult height (cm)	155.6 (4.7) 155.8 (145.7; 165.4) n=48	157.8 (5.9) 158.1 (145.1; 168.3) n=41	0.058	-2.18 (-4.42; 0.07)	0.411
Height_{SDS}	-1.97 (0.77) -1.94 (-3.6; -0.36) n=48	-1.61 (0.97) -1.56 (-3.7; 0.12) n=41	0.058	-0.358 (-0.727; 0.012)	0.411
Diff MPH_{SDS}	-1.69 (0.89) -1.77 (-3.92; 0.03) n=47	-1.50 (0.96) -1.46 (-4.07; 0.49) n=41	0.35	-0.188 (-0.578; 0.204)	0.204
Gain in Height_{SDS} Puberty onset - Adult height	-0.786 (0.642) -0.773 (-1.878; 1.321) n=48	-1.02 (0.57) -0.99 (-2.08; 0.24) n=41	0.074	0.232 (-0.023; 0.489)	0.382
Gain in height (cm) Puberty onset - Adult height	5.55 (4.49) 4 (-0.2; 20) n=48	9.09 (5.28) 7.6 (0.8; 20.5) n=41	0.0010	-3.54 (-5.60; -1.48)	0.728
Average GH dose_{Total} (µg/kg/day)	33.7 (1.7) 33.4 (31; 38.3) n=48	58.3 (4.1) 58.6 (46.6; 65.9) n=41	<.0001	-24.6 (-25.9; -23.3)	8.01
Time on GH (yrs)	7.98 (3.01) 8.32 (2.69; 12.61) n=48	8.07 (2.70) 8.03 (2.62; 13.87) n=41	0.88	-0.095 (-1.287; 1.117)	0.033
Duration puberty (yrs)	3.00 (1.43) 2.94 (0.98; 8.15) n=48	3.37 (1.45) 3.21 (1.02; 9.26) n=41	0.25	-0.361 (-0.967; 0.256)	0.251
Gain in height_{SDS} GH start - Adult height	0.839 (0.785) 0.821 (-1.32; 2.388) n=48	1.23 (0.75) 1.24 (-0.52; 3.27) n=41	0.020	-0.391 (-0.714; -0.064)	0.508

For continuous variables Mean (SD) / Median (Min; Max) / n= is presented.
For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables.
The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test.
Effect size is absolute difference in mean / pooled SD.
GH, growth hormone; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.

Suppl Table 7a. Pre-treatment characteristics for all GH versus age group at GH-start in the PP population versus the Swedish reference {1,2,3,4}.

Variables	GH-start 3- <9 (n=53)	GH-start 9- (n=36)	p-value	Difference between groups Mean (95% CI)	Effect Size
Karyotype 45X	35 (66.0%)	15 (41.7%)			
Mosaic	2 (3.8%)	1 (2.8%)			
Other	16 (30.2%)	20 (55.6%)	0.045		
Missing					
At birth					
GA (weeks)	38.7 (1.8) 39 (35; 42) n=51	39.1 (1.5) 39 (36; 42) n=33	0.35	-0.374 (-1.118; 0.364)	0.223
Length (SDS)	-2.27 (1.35) -2.09 (-5; 0.9) n=53	-2.11 (1.44) -1.93 (-5.49; 0.97) n=35	0.63	-0.150 (-0.748; 0.464)	0.108
Weight (SDS)	-1.38 (1.33) -1.16 (-5.11; 0.37) n=53	-1.54 (1.18) -1.35 (-4.73; 1.41) n=36	0.57	0.155 (-0.389; 0.697)	0.122
Mother height (SDS)	-0.122 (1.094) -0.261 (-2.078; 2.333) n=53	-0.211 (0.744) -0.182 (-1.775; 1.571) n=36	0.67	0.089 (-0.329; 0.510)	0.092
Father height (SDS)	-0.268 (1.070) -0.255 (-3.326; 1.434) n=53	0.017 (0.844) -0.101 (-1.713; 1.818) n=35	0.19	-0.284 (-0.711; 0.142)	0.288
MPH (SDS)	-0.242 (1.065) -0.429 (-3.356; 2.066) n=53	-0.144 (0.727) -0.077 (-1.547; 1.058) n=35	0.63	-0.098 (-0.507; 0.308)	0.104
DiffMPH (SDS)	-2.02 (1.53) -2.03 (-5.79; 1.48) n=53	-2.02 (1.51) -1.71 (-5.89; 0.96) n=34	0.99	-0.006 (-0.662; 0.655)	0.004
<p>For categorical variables n (%) is presented. For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups Chi Square Exact test was used for non-ordered categorical variables and the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for then mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GA, gestational age; GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 7b. Auxology from GH-start for **all GH** versus age group at GH-start in the PP population versus the Swedish references [1,2,3,4].

Variables	GH-start 3- <9 (n=53)	GH-start 9- (n=36)	p-value	Difference between groups Mean (95% CI)	Effect Size
At GH start					
Age (yrs)	5.82 (1.61) 5.55 (3.04; 8.89) n=53	11.6 (1.8) 11.1 (9; 15.9) n=36	<.0001	-5.81 (-6.53; -5.08)	3.42
Height_{SDS}	-2.83 (0.77) -2.82 (-5.39; -1.13) n=53	-2.82 (0.69) -2.88 (-4.43; -1.36) n=36	0.97	-0.006 (-0.320; 0.310)	0.008
Diff MPH_{SDS}	-2.59 (0.93) -2.4 (-4.5; -0.56) n=53	-2.67 (0.81) -2.5 (-4.01; -0.86) n=35	0.64	0.088 (-0.290; 0.468)	0.099
+ 1 yr All prepubertal					
Average GH dose_{Year 1} (µg/kg/day)	45.3 (10.9) 43.6 (25.5; 66.4) n=53	41.7 (11.8) 35.8 (26.7; 62.5) n=36	0.14	3.55 (-1.28; 8.35)	0.314
Height_{SDS}	-2.13 (0.77) -2.16 (-4.35; -0.51) n=53	-2.07 (0.76) -2 (-3.87; -0.41) n=33	0.72	-0.065 (-0.403; 0.270)	0.084
At puberty start					
Age (yrs)	13.6 (1.5) 13.7 (10.6; 16.9) n=53	14.6 (1.6) 15 (11.2; 16.8) n=36	0.0038	-0.996 (-1.680; -0.336)	0.643
Height_{SDS}	-0.738 (0.937) -0.696 (-3.022; 1.258) n=53	-1.17 (0.62) -1.17 (-2.28; -0.07) n=36	0.015	0.436 (0.088; 0.790)	0.528
Diff MPH_{SDS}	-0.496 (0.993) -0.459 (-2.791; 1.794) n=53	-1.03 (0.76) -1.29 (-2.14; 0.67) n=35	0.0074	0.535 (0.145; 0.930)	0.590
Average GH dose Pre puberty (µg/kg/day)	47.1 (12.9) 52 (30.8; 65.4) n=53	42.7 (12.7) 35.2 (29.8; 63.4) n=36	0.12	4.35 (-1.06; 9.84)	0.339
Gain in Height_{SDS} GH start - Puberty onset	2.09 (0.76) 2.09 (0.61; 4.38) n=53	1.65 (0.77) 1.73 (0.37; 2.88) n=36	0.0070	0.442 (0.117; 0.767)	0.579
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, mid-parental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

Suppl Table 7c. Auxology at adult height for **all GH** versus age group at GH-start in the PP population versus the Swedish references [1,2,3,4].

Variables	GH-start 3- <9 (n=53)	GH-start 9- (n=36)	p-value	Difference between groups Mean (95% CI)	Effect Size
At adult height					
Age (yrs)	16.8 (1.3) 16.5 (14.7; 21.4) n=53	17.9 (1.5) 18 (14.8; 23.5) n=36	0.0002	-1.16 (-1.74; -0.57)	0.843
Adult height (cm)	155.8 (6.0) 156.1 (145.1; 168.3) n=53	157.8 (4.1) 158.1 (145.7; 165.5) n=36	0.075	-2.08 (-4.31; 0.22)	0.391
Height_{SDS}	-1.95 (0.98) -1.89 (-3.7; 0.12) n=53	-1.60 (0.68) -1.56 (-3.6; -0.34) n=36	0.075	-0.341 (-0.709; 0.037)	0.391
Diff MPH_{SDS}	-1.70 (0.93) -1.64 (-4.07; 0.49) n=53	-1.45 (0.90) -1.5 (-3.92; 0.03) n=35	0.21	-0.252 (-0.648; 0.144)	0.275
Gain in height_{SDS} Puberty onset - Adult height	-1.21 (0.43) -1.21 (-2.08; -0.54) n=53	-0.430 (0.556) -0.478 (-1.781; 1.321) n=36	<.0001	-0.778 (-0.984; -0.569)	1.61
Gain in height (cm) Puberty onset - Adult height	6.46 (5.19) 4.8 (-0.2; 20.5) n=53	8.24 (4.99) 7.4 (1.1; 20.1) n=36	0.12	-1.78 (-3.95; 0.48)	0.348
Average GH dose_{Total} (µg/kg/day)	46.6 (12.5) 50 (31; 65.9) n=53	42.8 (12.8) 34.6 (31.2; 63.4) n=36	0.15	3.86 (-1.48; 9.27)	0.306
Time on GH (yrs)	9.88 (1.87) 9.86 (5.36; 13.87) n=53	5.29 (1.55) 5.42 (2.62; 8.29) n=36	<.0001	4.58 (3.83; 5.33)	2.62
Duration puberty (yrs)	3.10 (1.44) 3.03 (0.98; 9.26) n=53	3.27 (1.46) 3.24 (0.98; 8.15) n=36	0.61	-0.163 (-0.776; 0.478)	0.112
Gain in height_{SDS} GH start - Adult height	0.883 (0.776) 0.817 (-0.694; 3.269) n=53	1.22 (0.78) 1.4 (-1.32; 2.39) n=36	0.048	-0.335 (-0.667; -0.004)	0.432
<p>For continuous variables Mean (SD) / Median (Min; Max) / n= is presented. For comparison between groups the Fisher's Non Parametric Permutation Test was used for continuous variables. The confidence interval for the mean difference between groups is based on Fishers non-parametric permutation test. Effect size is absolute difference in mean / pooled SD. GH, growth hormone; SDS, standard deviation score; MPH, midparental height; DiffMPH, difference in SD score between the height of the girl and the heights of her parents.</p>					

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