Supplementary Table 4: All outcomes related to GH safety and effectiveness, as reported in all studies during the period 2003-2022.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Outcomes** | **System** | **Effectiveness** | **Safety** | **N (%)****studies** |
| Abdominal pain | Abdo/GI | 0 | 1 | 2 (0.9%) |
| Appendicitis | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Constipation | Abdo/GI | 0 | 1 | 2 (0.9%) |
| Dehydration | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Diarrhoea | Abdo/GI | 0 | 1 | 3 (1.3%) |
| Food poisoning | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Gastrin | Abdo/GI | 0 | 1 | 3 (1.3%) |
| Gastroenteritis | Abdo/GI | 0 | 1 | 5 (2.2%) |
| GI side effects | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Haematochezia | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Increased appetite | Abdo/GI | 0 | 1 | 5 (2.2%) |
| Inguinal hernia repair | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Mallory-Weiss syndrome | Abdo/GI | 0 | 1 | 2 (0.9%) |
| Nausea | Abdo/GI | 0 | 1 | 5 (2.2%) |
| Pancreatitis | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Reduced appetite | Abdo/GI | 0 | 1 | 2 (0.9%) |
| Vomiting | Abdo/GI | 0 | 1 | 1 (0.4%) |
| Body mass index (BMI) | Adiposity | 1 | 1 | 24 (10.9%) |
| Body mass index(BMI)-SDS | Adiposity | 1 | 1 | 26 (11.8%) |
| Fat mass | Adiposity | 1 | 1 | 10 (4.6%) |
| Leptin | Adiposity | 1 | 1 | 3 (1.3%) |
| Leptin receptor | Adiposity | 1 | 1 | 7 (3%) |
| Omentin | Adiposity | 1 | 1 | 1 (0.4%) |
| Retinol binding protein-4 (RBP4) | Adiposity | 1 | 1 | 12 (5.5%) |
| Subscapular skinfold thickness | Adiposity | 1 | 1 | 1 (0.4%) |
| Triceps skinfold SDS | Adiposity | 1 | 1 | 1 (0.4%) |
| Waist to height ratio | Adiposity | 1 | 1 | 1 (0.4%) |
| Waist to hip ratio | Adiposity | 1 | 1 | 2 (0.9%) |
| Weight | Adiposity | 1 | 1 | 7 (3%) |
| Weight gain | Adiposity | 1 | 1 | 2 (0.9%) |
| Weight SDS | Adiposity | 1 | 1 | 3 (1.3%) |
| Ghrelin | Adiposity | 1 | 1 | 1 (0.4%) |
| Fat mass-SDS | Adiposity | 1 | 1 | 2 (0.9%) |
| Waist circumference-SDS | Adiposity | 1 | 1 | 1 (0.4%) |
| ACTH | Adrenal function | 0 | 1 | 6 (2.7%) |
| Adrenal insufficiency | Adrenal function | 0 | 1 | 5 (2.2%) |
| Cortisol | Adrenal function | 0 | 1 | 6 (2.7%) |
| Hypocortisolaemia | Adrenal function | 0 | 1 | 2 (0.9%) |
| Secondary adrenal insufficiency | Adrenal function | 0 | 1 | 4 (1.8%) |
| Hypercortisolaemia | Adrenal function | 0 | 1 | 1 (0.4%) |
| Angular measurements of craniofacial growth | Bone Density/Geometry | 1 | 1 | 1 (0.4%) |
| Bone mineral content (BMC) | Bone Density/Geometry | 1 | 0 | 4 (1.8%) |
| BMC z-score | Bone Density/Geometry | 1 | 0 | 3 (1.3%) |
| BMC for bone age z-score | Bone Density/Geometry | 1 | 0 | 1 (0.4%) |
| Cortical area | Bone Density/Geometry | 1 | 0 | 1 (0.4%) |
| Linear measurements of craniofacial growth | Bone Density/Geometry | 1 | 1 | 1 (0.4%) |
| Medullary endocortical area | Bone Density/Geometry | 1 | 0 | 1 (0.4%) |
| Metacarpal thickness | Bone Density/Geometry | 1 | 0 | 1 (0.4%) |
| Total cross-sectional area | Bone Density/Geometry | 1 | 0 | 3 (1.3%) |
| Bone mineral density (BMD) spine | Bone Density/Geometry | 1 | 0 | 1 (0.4%) |
| BMD whole body | Bone Density/Geometry | 1 | 0 | 2 (0.9%) |
| 1,25-(OH) vitamin D | Bone Mineral/Turnover | 1 | 0 | 4 (1.8%) |
| 25-(OH) vitamin D3 | Bone Mineral/Turnover | 1 | 0 | 4 (1.8%) |
| Abnormal bone development | Bone Mineral/Turnover | 1 | 1 | 1 (0.4%) |
| Alkaline phosphatase (ALP) | Bone Mineral/Turnover | 1 | 1 | 3 (1.3%) |
| Bone alkaline phosphatase | Bone Mineral/Turnover | 1 | 0 | 4 (1.8%) |
| C-terminal FGF23  | Bone Mineral/Turnover | 1 | 0 | 1 (0.4%) |
| Calcium | Bone Mineral/Turnover | 1 | 0 | 3 (1.3%) |
| Change in NT-proCNP  | Bone Mineral/Turnover | 1 | 0 | 1 (0.4%) |
| ICTP | Bone Mineral/Turnover | 1 | 0 | 7 (3%) |
| Increased ALP | Bone Mineral/Turnover | 1 | 0 | 8 (3.7%) |
| Intact FGF23 | Bone Mineral/Turnover | 1 | 0 | 8 (3.7%) |
| Osteocalcin | Bone Mineral/Turnover | 1 | 0 | 7 (3%) |
| Osteoprotegerin | Bone Mineral/Turnover | 1 | 0 | 2 (0.9%) |
| Phosphate | Bone Mineral/Turnover | 1 | 0 | 1 (0.4%) |
| PICP | Bone Mineral/Turnover | 1 | 0 | 1 (0.4%) |
| Parathormone (PTH) | Bone Mineral/Turnover | 1 | 0 | 2 (0.9%) |
| Soluble a-klotho | Bone Mineral/Turnover | 1 | 0 | 1 (0.4%) |
| TmPO4/GFR | Bone Mineral/Turnover | 1 | 0 | 2 (0.9%) |
| PINP | Bone Mineral/Turnover | 1 | 0 | 3 (1.3%) |
| Blood pressure | Cardiovascular | 1 | 1 | 2 (0.9%) |
| Cardiovascular events | Cardiovascular | 0 | 1 | 4 (1.8%) |
| Carotid intima media thickness | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Heart rate | Cardiovascular | 0 | 1 | 5 (2.2%) |
| Hypotension | Cardiovascular | 0 | 1 | 1 (0.4%) |
| Increased heart rate | Cardiovascular | 0 | 1 | 2 (0.9%) |
| Left ventricular function | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Presyncope | Cardiovascular | 0 | 1 | 3 (1.3%) |
| Corrected QT time | Cardiovascular | 0 | 1 | 1 (0.4%) |
| Systolic blood pressure | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Diastolic blood pressure | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular mass | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular mass/body surface area | Cardiovascular | 1 | 1 | 2 (0.9%) |
| Left ventricular mass/height | Cardiovascular | 1 | 1 | 3 (1.3%) |
| Interventricular septum diameter in diastole | Cardiovascular | 1 | 1 | 1 (0.4%) |
| PAI-1  | Cardiovascular | 1 | 0 | 1 (0.4%) |
| Fibrinogen | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Von Willebrand factor | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Mean treadmill exercise tolerance Z score | Cardiovascular | 1 | 0 | 1 (0.4%) |
| Homocysteine | Cardiovascular | 0 | 1 | 1 (0.4%) |
| Interventricular septum thickness | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular posterior wall thickness | Cardiovascular | 1 | 1 | 2 (0.9%) |
| Left ventricular end-systolic diameter | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular end-diastolic diameter | Cardiovascular | 1 | 1 | 4 (1.8%) |
| Left ventricular end-diastolic volume | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular end-systolic volume | Cardiovascular | 1 | 1 | 1 (0.4%) |
| Left ventricular ejection fraction | Cardiovascular | 1 | 1 | 3 (1.3%) |
| Left ventricular wall stress | Cardiovascular | 1 | 1 | 2 (0.9%) |
| cGMP | Cardiovascular | 1 | 0 | 2 (0.9%) |
| Asymmetric dimethylarginine (ADMA) | Cardiovascular | 1 | 0 | 1 (0.4%) |
| Symmetric dimethylarginine (SDMA) | Cardiovascular | 1 | 0 | 2 (0.9%) |
| Arginine/ADMA ratio | Cardiovascular | 1 | 0 | 1 (0.4%) |
| Basal forearm blood flow (FBF) | Cardiovascular | 1 | 0 | 1 (0.4%) |
| Aortic diameter | Cardiovascular | 1 | 1 | 2 (0.9%) |
| Left atrial diameter | Cardiovascular | 1 | 1 | 4 (1.8%) |
| Left ventricular end-diastolic diameter index | Cardiovascular | 1 | 1 | 5 (2.2%) |
| Cost effectiveness | Cost effectiveness | 1 | 1 | 1 (0.4%) |
| Adenoidal hypertrophy | ENT | 0 | 1 | 1 (0.4%) |
| Ear infection | ENT | 0 | 1 | 3 (1.3%) |
| Ear pain | ENT | 0 | 1 | 1 (0.4%) |
| Mastoiditis | ENT | 0 | 1 | 1 (0.4%) |
| Nasopharyngitis | ENT | 0 | 1 | 1 (0.4%) |
| Oropharyngeal pain | ENT | 0 | 1 | 5 (2.2%) |
| Otitis media | ENT | 0 | 1 | 3 (1.3%) |
| Pharyngitis | ENT | 0 | 1 | 1 (0.4%) |
| Rhinitis | ENT | 0 | 1 | 1 (0.4%) |
| Tonsillitis | ENT | 0 | 1 | 1 (0.4%) |
| Fatigue | Fatigue | 1 | 0 | 2 (0.9%) |
| Malaise | Fatigue | 1 | 0 | 1 (0.4%) |
| Lethargy | Fatigue | 1 | 0 | 9 (4.1%) |
| GH dose | GH Dose/Level | 1 | 1 | 4 (1.8%) |
| GH level | GH Dose/Level | 1 | 1 | 1 (0.4%) |
| Prescribed overdose | GH Dose/Level | 0 | 1 | 1 (0.4%) |
| Adiponectin | Glucose homeostasis | 0 | 1 | 9 (4.1%) |
| Blood insulin level increase | Glucose homeostasis | 0 | 1 | 1 (0.4%) |
| Hyperglycaemia | Glucose homeostasis | 0 | 1 | 42 (19%) |
| Diabetes mellitus | Glucose homeostasis | 0 | 1 | 5 (2.2%) |
| Fasting glycaemia | Glucose homeostasis | 0 | 1 | 12 (5.4%) |
| Fasting hyperglycaemia | Glucose homeostasis | 0 | 1 | 4 (1.8%) |
| Fasting hyperinsulinemia | Glucose homeostasis | 0 | 1 | 2 (0.9%) |
| Fasting insulin | Glucose homeostasis | 0 | 1 | 2 (0.9%) |
| Glucose (plasma, random) | Glucose homeostasis | 0 | 1 | 19 (8.7%) |
| Glucose intolerance | Glucose homeostasis | 0 | 1 | 13 (5.9%) |
| HbA1c (Glycosylated haemoglobin) | Glucose homeostasis | 0 | 1 | 11 (5.0%) |
| HbA1c increase | Glucose homeostasis | 0 | 1 | 4 (1.8%) |
| Hypoglycaemia | Glucose homeostasis | 0 | 1 | 2 (0.9%) |
| Insulin | Glucose homeostasis | 0 | 1 | 17 (8%) |
| Insulin above range | Glucose homeostasis | 0 | 1 | 1 (0.4%) |
| HOMA-IR | Glucose homeostasis | 0 | 1 | 1 (0.4%) |
| Mets-IR | Glucose homeostasis | 0 | 1 | 1 (0.4%) |
| Resistin | Glucose homeostasis | 0 | 1 | 1 (0.4%) |
| Type 1 diabetes | Glucose homeostasis | 0 | 1 | 18 (8.2%) |
| Anaemia | Haematology | 0 | 1 | 5 (2.2%) |
| Erythema | Haematology | 0 | 1 | 2 (0.9%) |
| Haematological test abnormality | Haematology | 0 | 1 | 4 (1.8%) |
| Hematoma | Haematology | 0 | 1 | 1 (0.4%) |
| Pancytopenia | Haematology | 0 | 1 | 2 (0.9%) |
| Eosinophilia | Haematology | 0 | 1 | 1 (0.4%) |
| Elevated haematocrit | Haematology | 0 | 1 | 2 (0.9%) |
| Follate | Haematology | 0 | 1 | 2 (0.9%) |
| Vitamin B12 | Haematology | 0 | 1 | 1 (0.4%) |
| Haemoglobin | Haematology | 0 | 1 | 1 (0.4%) |
| Change in IGF1-SDS/IGFBP-3 SDS | IGF1/BPs | 1 | 1 | 2 (0.9%) |
| IGF-1 (Insulin-like growth factor-1) | IGF1/BPs | 1 | 1 | 66 (30%) |
| IGF-1 above normal range | IGF1/BPs | 1 | 1 | 5 (2.2%) |
| IGF-1-SDS | IGF1/BPs | 1 | 1 | 45 (21%) |
| IGFBP-3  | IGF1/BPs | 1 | 0 | 34 (16%) |
| IGFBP-3 SDS | IGF1/BPs | 1 | 0 | 8 (3.7%) |
| IGF-1/IGFBP-3 | IGF1/BPs | 1 | 1 | 4 (1.8%) |
| IGF-2 | IGF1/BPs | 1 | 1 | 1 (0.4%) |
| IGFBP-2 | IGF1/BPs | 1 | 1 | 1 (0.4%) |
| Interleukin 6 (IL-6) | Immunology/Inflammation | 0 | 1 | 4 (1.8%) |
| Rash | Immunology/Inflammation | 0 | 1 | 2 (0.9%) |
| Tumour necrocis factor (TNF)-a | Immunology/Inflammation | 1 | 1 | 10 (4.6%) |
| Urticaria | Immunology/Inflammation | 0 | 1 | 2 (0.9%) |
| Interleukin 4 (IL-4) | Immunology/Inflammation | 0 | 1 | 5 (2.2%) |
| Interleukin-12 (IL-12) | Immunology/Inflammation | 0 | 1 | 3 (1.3%) |
| C-reactive protein (CRP) | Immunology/Inflammation | 1 | 1 | 1 (0.4%) |
| Allergy | Immunology/Inflammation | 0 | 1 | 1 (0.4%) |
| Conjuctivitis | Infections | 0 | 1 | 2 (0.9%) |
| Fever | Infections | 0 | 1 | 2 (0.9%) |
| Infection | Infections | 0 | 1 | 3 (1.3%) |
| Influenza | Infections | 0 | 1 | 7 (3%) |
| Pyrexia | Infections | 0 | 1 | 1 (0.4%) |
| Varicella | Infections | 0 | 1 | 1 (0.4%) |
| Injection site adverse events | Injection site | 0 | 1 | 44 (20%) |
| Lipodystrophy/injection site atrophy | Injection site | 0 | 1 | 2 (0.9%) |
| Height-SDS | Linear growth | 1 | 0 | 117 (53%) |
| Adult height | Linear growth | 1 | 0 | 5 (2.2%) |
| Adult height-SDS | Linear growth | 1 | 0 | 11 (5%) |
| Difference between height and mid-parental height SDS | Linear growth | 1 | 0 | 2 (0.9%) |
| Height | Linear growth | 1 | 0 | 63 (29%) |
| Height velocity | Linear growth | 1 | 0 | 105 (48%) |
| Height velocity-SDS | Linear growth | 1 | 0 | 26 (11.9%) |
| Height SDS for bone age | Linear growth | 1 | 0 | 3 (1.3%) |
| Median difference between predicted adult height and near adult height SD score | Linear growth | 1 | 0 | 1 (0.4%) |
| Target height-SDS deficit | Linear growth | 1 | 0 | 1 (0.4%) |
| Change in height-SDS | Linear growth | 1 | 0 | 1 (0.4%) |
| Change in height velocity | Linear growth | 1 | 0 | 1 (0.4%) |
| Proportion of children reaching normal adult height | Linear growth | 1 | 0 | 1 (0.4%) |
| Proportion of children reaching mid-parental target height | Linear growth | 1 | 0 | 1 (0.4%) |
| Proportion of children achieving near adult height | Linear growth | 1 | 0 | 1 (0.4%) |
| Sitting height % SDS | Linear growth | 1 | 0 | 1 (0.4%) |
| AFABP | Lipids | 1 | 0 | 1 (0.4%) |
| Apolipoprotein-B/Apolipoprotein A1 ratio | Lipids | 1 | 0 | 1 (0.4%) |
| Apolipoprotein A | Lipids | 1 | 0 | 4 (1.8%) |
| Apolipoprotein B | Lipids | 1 | 0 | 4 (1.8%) |
| Apolipoprotein E | Lipids | 1 | 0 | 1 (0.4%) |
| Cholesterol | Lipids | 1 | 0 | 13 (5.9%) |
| Cholesteryl ester transfer protein (CETP) | Lipids | 1 | 0 | 1 (0.4%) |
| Fasting total cholesterol | Lipids | 1 | 0 | 2 (0.9%) |
| High-density lipoprotein (HDL) cholesterol | Lipids | 1 | 0 | 12 (5.5%) |
| HDL-2 | Lipids | 1 | 0 | 1 (0.4%) |
| HDL-3 | Lipids | 1 | 0 | 1 (0.4%) |
| Hypercholesterolemia | Lipids | 1 | 0 | 1 (0.4%) |
| Intermediate density lipoprotein (IDL) | Lipids | 1 | 0 | 1 (0.4%) |
| Increased triglycerides | Lipids | 1 | 0 | 5 (2.2%) |
| Low-density lipoprotein (LDL) | Lipids | 1 | 0 | 3 (1.3%) |
| LDL-1 | Lipids | 1 | 0 | 13 (5.9%) |
| LDL-2 | Lipids | 1 | 0 | 1 (0.4%) |
| LDL-3 | Lipids | 1 | 0 | 1 (0.4%) |
| LDL-4 | Lipids | 1 | 0 | 1 (0.4%) |
| Lipids | Lipids | 1 | 0 | 1 (0.4%) |
| Lipoprotein a | Lipids | 1 | 0 | 4 (1.8%) |
| Lipoproteins | Lipids | 1 | 0 | 1 (0.4%) |
| Non-HDL | Lipids | 1 | 0 | 1 (0.4%) |
| Total cholesterol | Lipids | 1 | 0 | 1 (0.4%) |
| Triglycerides | Lipids | 1 | 0 | 1 (0.4%) |
| Very-low-density lipoprotein-3 (VLDL-3) | Lipids | 1 | 0 | 1 (0.4%) |
| Visfatin | Lipids | 1 | 0 | 2 (0.9%) |
| VLDL | Lipids | 1 | 0 | 1 (0.4%) |
| HDL:LDL ratio | Lipids | 1 | 0 | 1 (0.4%) |
| Total cholesterol:HDL ratio | Lipids | 1 | 0 | 1 (0.4%) |
| Non-alcoholic fatty liver disease | Liver function | 0 | 1 | 3 (1.3%) |
| Raised alkaline phosphatase (ALP) | Liver function | 0 | 1 | 2 (0.9%) |
| Bilirubin | Liver function | 0 | 1 | 1 (0.4%) |
| Increased alkaline aminotransferase (ALT) | Liver function | 0 | 1 | 1 (0.4%) |
| Gamma-glutamyl Transferase (γ-GT) | Liver function | 0 | 1 | 1 (0.4%) |
| All-cause mortality | Mortality | 0 | 1 | 11 (5%) |
| Blood creatine kinase (CK) increased | Muscle | 1 | 1 | 2 (0.9%) |
| Lean body mass | Muscle | 1 | 0 | 1 (0.4%) |
| Lean soft tissue | Muscle | 1 | 0 | 7 (3.2%) |
| Myalgia | Muscle | 0 | 1 | 3 (1.3%) |
| Lean body mass-SDS | Muscle | 1 | 0 | 1 (0.4%) |
| Contusion | Muscle | 0 | 1 | 1 (0.4%) |
| Grip strength | Muscle | 1 | 0 | 1 (0.4%) |
| Lactate dehydrogenase (LDH) | Muscle | 0 | 1 | 2 (0.9%) |
| Arnold-Chiari malformation | Neurological | 0 | 1 | 1 (0.4%) |
| Benign cranial hypertension | Neurological | 0 | 1 | 5 (2.2%) |
| Carpal tunnel syndrome | Neurological | 0 | 1 | 1 (0.4%) |
| Central nervous system side effects | Neurological | 0 | 1 | 1 (0.4%) |
| Convulsion | Neurological | 0 | 1 | 2 (0.9%) |
| Craniopharyngioma | Neurological | 0 | 1 | 2 (0.9%) |
| Dizziness | Neurological | 0 | 1 | 1 (0.4%) |
| Head circumference change | Neurological | 1 | 0 | 1 (0.4%) |
| Head injury | Neurological | 0 | 1 | 1 (0.4%) |
| Headache | Neurological | 0 | 1 | 27 (12.3%) |
| Papilledema | Neurological | 0 | 1 | 1 (0.4%) |
| Standardised incidence ratio for stroke | Neurological | 0 | 1 | 1 (0.4%) |
| Increased intraocular pressure | Neurological | 0 | 1 | 2 (0.9%) |
| Myopia | Neurological | 0 | 1 | 2 (0.9%) |
| Time in bed | Neurological/Sleep architecture | 1 | 0 | 1 (0.4%) |
| Sleep period time | Neurological/Sleep architecture | 1 | 0 | 1 (0.4%) |
| Sleep latency | Neurological/Sleep architecture | 1 | 0 | 1 (0.4%) |
| Awakenings/hour | Neurological/Sleep architecture | 1 | 0 | 1 (0.4%) |
| Eyelid oedema | Oedema | 0 | 1 | 5 (2.2%) |
| Generalised oedema | Oedema | 0 | 1 | 17 (8%) |
| Lower limb oedema | Oedema | 0 | 1 | 1 (0.4%) |
| Face swelling | Oedema | 0 | 1 | 3 (1.3%) |
| Hypopituitarism | Pituitary Function | 1 | 0 | 1 (0.4%) |
| Time to onset of other pituitary deficiency | Pituitary Function | 1 | 0 | 4 (1.8%) |
| Type of additional pituitary hormone deficiency | Pituitary Function | 1 | 0 | 1 (0.4%) |
| Development of additional pituitary hormone deficiencies | Pituitary Function | 1 | 0 | 20 (9.1%) |
| Child behavioural problems and impact on family life | Psychosocial | 1 | 1 | 1 (0.4%) |
| Child health-related quality of life | Psychosocial | 1 | 1 | 1 (0.4%) |
| Depressed mood | Psychosocial | 1 | 1 | 2 (0.9%) |
| Disturbance in school achievements and attention | Psychosocial | 1 | 1 | 1 (0.4%) |
| Emotional well-being burden | Psychosocial | 1 | 1 | 1 (0.4%) |
| Optimism | Psychosocial | 1 | 1 | 1 (0.4%) |
| Physical treatment burden | Psychosocial | 1 | 1 | 1 (0.4%) |
| Quality of life (QoL) | Psychosocial | 1 | 1 | 10 (4.6%) |
| Social aspects of treatment burden | Psychosocial | 1 | 1 | 11 (5%) |
| Gynaecomastia | Puberty/Gonadal Function | 0 | 1 | 3 (1.3%) |
| Hypogonadism | Puberty/Gonadal Function | 0 | 1 | 1 (0.4%) |
| Penile length | Puberty/Gonadal Function | 1 | 0 | 1 (0.4%) |
| Precocious puberty | Puberty/Gonadal Function | 0 | 1 | 1 (0.4%) |
| Start of puberty | Puberty/Gonadal Function | 0 | 1 | 1 (0.4%) |
| Testicular volume | Puberty/Gonadal Function | 0 | 1 | 1 (0.4%) |
| Calculus bladder | Renal Tract | 0 | 1 | 1 (0.4%) |
| Haematuria | Renal Tract | 0 | 1 | 1 (0.4%) |
| Hepatorenal function | Renal Tract | 0 | 1 | 1 (0.4%) |
| Hyperuricemia | Renal Tract | 0 | 1 | 1 (0.4%) |
| Microscopic haematuria | Renal Tract | 0 | 1 | 1 (0.4%) |
| Urinary tract infection | Renal Tract | 0 | 1 | 9 (4.1%) |
| Creatinine | Renal Tract | 0 | 1 | 2 (0.9%) |
| Urea | Renal Tract | 0 | 1 | 1 (0.4%) |
| Asthma | Respiratory | 0 | 1 | 1 (0.4%) |
| Bronchitis | Respiratory | 0 | 1 | 4 (1.8%) |
| Cough | Respiratory | 0 | 1 | 6 (2.7%) |
| Pneumonia | Respiratory | 0 | 1 | 2 (0.9%) |
| Sleep-apnoea syndrome | Respiratory | 0 | 1 | 4 (1.8%) |
| Tracheitis | Respiratory | 0 | 1 | 5 (2.2%) |
| Upper respiratory tract infection | Respiratory | 0 | 1 | 1 (0.4%) |
| Arthritis | Skeletal Symptoms | 0 | 1 | 18 (8.2%) |
| Bone lesion | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Epiphysiolysis | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Joint pain | Skeletal Symptoms | 0 | 1 | 2 (0.9%) |
| Joint stiffness | Skeletal Symptoms | 0 | 1 | 2 (0.9%) |
| Knee deformity | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Knee pain | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Kyphosis | Skeletal Symptoms | 0 | 1 | 3 (1.3%) |
| Osteochondrosis | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Pain in extremity | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Scoliosis | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Upper/lower body ratio | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Back pain | Skeletal Symptoms | 0 | 1 | 3 (1.3%) |
| Bone pain | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Slipped femoral epiphyses | Skeletal Symptoms | 0 | 1 | 1 (0.4%) |
| Bone age | Skeletal Maturation | 1 | 1 | 58 (26%) |
| Bone age/chronological age | Skeletal Maturation | 1 | 1 | 10 (4.6%) |
| Difference between bone age and chronological age | Skeletal Maturation | 1 | 1 | 2 (0.9%) |
| Pubertal age | Skeletal Maturation | 1 | 1 | 3 (1.3%) |
| Mean difference between birth and dental age | Skeletal Maturation | 1 | 1 | 1 (0.4%) |
| Eczema asteatotic | Skin | 0 | 1 | 2 (0.9%) |
| Dermatitis | Skin | 0 | 1 | 1 (0.4%) |
| Blood thyroid-stimulating hormone increased | Thyroid Function | 0 | 1 | 1 (0.4%) |
| Free triiodothyronine (FT3) | Thyroid Function | 0 | 1 | 9 (4.1%) |
| Hypothyroidism | Thyroid Function | 0 | 1 | 30 (14%) |
| Subclinical hyperthyroidism | Thyroid Function | 0 | 1 | 1 (0.4%) |
| Free thyroxine (FT4) | Thyroid Function | 0 | 1 | 4 (1.8%) |
| Thyroid function (abnormal) | Thyroid Function | 0 | 1 | 13 (5.9%) |
| Thyroid-stimulating hormone (TSH) | Thyroid Function | 0 | 1 | 1 (0.4%) |
| Total T3 | Thyroid Function | 0 | 1 | 13 (5.9%) |
| Total T4 | Thyroid Function | 0 | 1 | 3 (1.3%) |
| FT3/FT4 | Thyroid Function | 0 | 1 | 2 (0.9%) |
| Total T3/total T4 | Thyroid Function | 0 | 1 | 5 (2.2%) |
| Acute myeloid leukemia (AML) | Tumour | 0 | 1 | 1 (0.4%) |
| Neoplasm | Tumour | 0 | 1 | 2 (0.9%) |
| Neurofibroma | Tumour | 0 | 1 | 3 (1.3%) |
| Nevocytic nevus | Tumour | 0 | 1 | 11 (5%) |
| Acute lymphoblastic leukemia (ALL) | Tumour | 0 | 1 | 1 (0.4%) |
| Meningioma | Tumour | 0 | 1 | 1 (0.4%) |
| Medulloblastoma | Tumour | 0 | 1 | 1 (0.4%) |
| Non-Hodgkin lymphoma | Tumour | 0 | 1 | 4 (1.8%) |
| PNET | Tumour | 0 | 1 | 1 (0.4%) |
| Leukemia | Tumour | 0 | 1 | 1 (0.4%) |
| Glioma | Tumour | 0 | 1 | 1 (0.4%) |
| Germ cell tumour | Tumour | 0 | 1 | 1 (0.4%) |
| Rhabdosarcoma | Tumour | 0 | 1 | 1 (0.4%) |
| Astrocytoma | Tumour | 0 | 1 | 1 (0.4%) |
| Cerebral sarcoma | Tumour | 0 | 1 | 3 (1.3%) |
| Neuroblastoma | Tumour | 0 | 1 | 1 (0.4%) |

Abbreviations:

SDS, Standard deviation score; FGF, Fibroblast growth factor; HOMA-IR, Homeostatic model assessment for insulin resistance; NT-proCNP, N-terminal pro C-Type Natriuretic Peptide; ICTP, Carboxyterminal telopeptide of type I collagen; PICP, Procollagen type I carboxy-terminal propeptide; PINP, Procollagen type I amino-terminal propeptide; PAI-1, absolute plasminogen activator inhibitor type 1; cGMP, Serum cyclic guanosine monophosphate; Mets-IR, Metabolic score for insulin resistance; IGFBP-3, Insulin-like growth factor binding protein-3; PNET, Primitive neuro-ectodermal tumours; Cost effectiveness, cost per percentage of children achieving target height; AFABP, Adipocyte fatty-acid binding protein