

Prader-Willi syndrome and Homoeopathy

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Prader-Willi syndrome (PWS) is a single gene imprinting disorder (Psora/ Syphilis) caused by defects in chromosome 15. These defects may be of two types-

Prader Willi Syndrome is a disorder due to depleted gene at chromosome 15 characterized by diminished foetal activity, obesity, hypotonia, mental retardation, short stature, hypogonadotropic hypogonadism, strabismus, small hands and feet and diabetes mellitus.

- 1- Paternally inherited deletion or disruption of genes in the proximal arm of chromosome 15. (Syphilis)
- 2- Maternal disomy in the proximal arm of chromosome 15. (Psora)

Related words

Cryptorchidism-dwarfism-subnormal mentality;
hypogenital dystrophy with diabetic tendency;
hypotonia-hypomentia-hypogonadism-obesity syndrome; Labhart-Willi syndrome; Prader-Labhart-Willi Fancone syndrome; Willi-Prader syndrome.

Historical Background

The first patient with Prader-Willi syndrome was described by Langdon-Down In 1887 as an adolescent girl with mental impairment (Psora), short stature (Psora), hypogonadism (Psora), obesity (Psora). He called these symptoms to polysarcia.

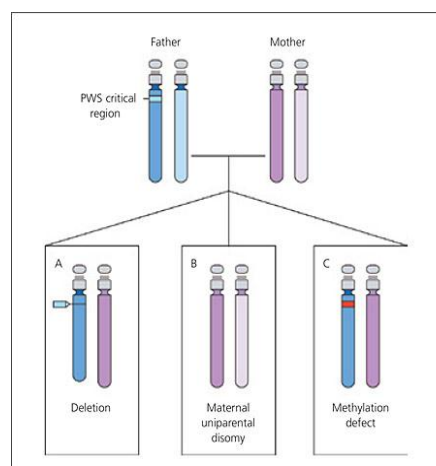
In 1956, Prader et al reported some patients with similar phenotypes.

In 1981, Ledbetter et al identified microdeletions (Syphilis) within chromosome 15 and determined it to be the site for Prader-Willi syndrome.

Pathophysiology

Prader-Willi syndrome is the first human disorder recognized to genomic imprinting. In such disorders, genes are expressed differentially based on the parent of origin. It results from the loss of imprinted genomic material within the paternal 15q11.2-13 locus. The loss of maternal genomic material (Syphilis) at the 15q11.2-13 locus results in Angelman syndrome.

Most cases of Prader-Willi syndrome that involve deletions (Syphilis), unbalanced translocations (Psora), and uniparental (maternal) disomy (Psora) are sporadic.



Epidemiology

Most cases of Prader-Willi syndrome are sporadic with a prevalence rate of 1 per 25,000 population.

Mortality/Morbidity

It is due to complications due to obesity e.g., slipped capital femoral epiphyses, sleep apnoea, cor pulmonale, type 2 diabetes mellitus.

Behavioural problems are major contributors to morbidity and mortality in individuals with Prader-Willi syndrome. It is a genetic disorder with lifelong implications.

History

Infants

Hypotonia (Psora), poor suck (Psora), weak cry (Psora), and genital hypoplasia (Psora) (e.g., cryptorchidism, scrotal hypoplasia, clitoral hypoplasia).

Toddlers

Major motor milestones delayed. (Psora)

Children

Hyperphagia (Psora) with progressive development of obesity (Psora).

Short stature (Psora) with lack of pubertal growth shot (Syphilis).

Sleep disturbances (Psora), obstructive sleep apnea and narcolepsy (Psora).

Growth hormone deficiency (Psora).

Premature growth of pubic and axillary hair (Psora) but other features of Prader-Willi syndrome are usually delayed or incomplete.

Testicular descent late (Psora) ; menarche may occur as late as age 30 (Psora).

Features of psychosis and behavioural problems- temper outbursts (Psora), stubborn (Psora), and obsessive-compulsive behaviour (Psora), eating garbage (Psora) and frozen food (Psora), and stealing resources to obtain food (Psora) leading to gastric complications, gastric necrosis (Psora/ Syphilis) and even death.

Mild mental retardation (Psora).

Obesity complications- sleep apnoea (Psora), cor pulmonale (Psora/ Sycosis), diabetes mellitus (Pseudopsora), atherosclerosis (Sycosis).

DYSMORPHIC FINDINGS IN A CHILD WITH PRADER-WILLI SYNDROME INCLUDE NARROWING OF THE TEMPLES, ALMOND-SHAPED EYES, STRABISMUS, AND A THIN UPPER LIP.



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Physical

Holm et al established the following diagnostic criteria for Prader-Willi syndrome. Score 1 point for each major criterion and 0.5 point for each minor criterion. A diagnosis of Prader-Willi syndrome should be suspected in children younger than three years with a score of at least 5; and in children three years and older with a score of at least 8, with 4 points from major criteria. Supportive criteria (no points) include high pain threshold, decreased vomiting, temperature control problems, scoliosis, kyphosis, early adrenarche, osteoporosis, unusual skill with jigsaw puzzles, and normal neuromuscular studies.

Diagnostic Criteria for Prader-Willi Syndrome

Major criteria	Minor criteria
1. Characteristic facial features (may include almond-shaped eyes, downturned mouth, narrow	1. Decreased foetal movement and infantile lethargy
2. Bifrontal diameter, strabismus, thin upper lip	2. Esotropia, myopia
3. Developmental delay	3. Hypopigmentation
4. Feeding problems/failure to thrive during infancy	4. Narrow hands with straight ulnar border
5. Hypogonadism (may include cryptorchidism, hypoplastic scrotum, and small testes in males;	5. Short stature (compared with family members)
6. Hypoplastic labia minora and clitoris in females; and pubertal deficiency)	6. Skin picking
7. Infantile central hypotonia	7. Sleep disturbance/sleep apnea
8. Rapid weight gain between 1 and 6 years of age	8. Small hands and feet
	9. Speech articulation defects
	10. Thick, viscous saliva
	11. Typical behavioural problems

Causes

Prader-Willi syndrome is due to the loss of the paternal copy (Syphilis) of chromosome 15q11.2-13.

More than 70% of patients have a deletion of the paternal copy (Syphilis); approximately 25% of patients with Prader-Willi syndrome have maternal uniparental disomy (Psora) in chromosome 15. The remainder of patients with this disorder have a translocation or other structural alteration (Psora) in chromosome 15.

Most manifestations of Prader-Willi syndrome are attributable to hypothalamic dysfunction.

Clinical picture

Clinical features of Prader–Willi syndrome	
Facies Narrow forehead	Almond-shaped eyes
	Down-turned mouth
	Triangular upper lip; ‘carp-like’ mouth
	Upturned retroussé nose
	High arched palate
Musculo-skeletal	Central origin muscular hypotonia
	Scoliosis
	Small hands and feet
	Flat ulnar border to hands
	Tapering fingers and toes
	Short stature
Hypothalamic abnormalities	Cryptorchidism
	Micropenis
	Small female genitalia
	Delayed or absent pubertal development
	Primary or secondary amenorrhoea
Psychodevelopmental problems	Delayed motor development
	Delayed language development
	Learning difficulties
	Cognitive difficulties
	Temper tantrums
	Controlling/manipulative behaviours
	Food seeking behaviour
	Stubbornness
Cutaneous problems	Self-inflicted wounds on arms particularly
	Intertrigo in fat folds with secondary Candida infection
	Phlebitis and ulceration of oedematous legs
Nutritional state	Feeding problems in early life: failure to thrive
	Later insatiable appetite: gross obesity
Co-morbidities	Cardiorespiratory problems
	Obstructive sleep apnoea
	Type 2 diabetes mellitus
	Osteoporosis

Differential Diagnoses

Anxiety Disorder: Obsessive-Compulsive Disorder	Cryptorchidism
Failure to Thrive	Fragile X Syndrome
Growth Hormone Deficiency	Hypogonadism
Obesity	Obesity-Hypoventilation Syndrome and Pulmonary Consequences of Obesity
Obstructive Sleep Apnoea Syndrome	Osteoporosis
Short Stature	Sleep Apnoea

Laboratory Studies

Genetic testing

It includes chromosomal analysis and assessment for methylation patterns in the Prader-Willi syndrome region.

Analysis for underlying uniparental disomy requires samples from both parents and the child with Prader-Willi syndrome.

Fluorescent in situ hybridization (FISH) can be used to confirm prenatal diagnosis when a deletion in the 15q region is suspected after chorionic villus sampling or amniocentesis.

Hormone testing

Fasting measurements of serum insulinlike growth factor-1 (IGF-1) and insulinlike growth factor binding protein-3 (IGFBP-3) levels are good screening measurements for underlying growth hormone deficiency.

Assessment of thyroid, Hypopituitarism and adrenal status.

Obesity

Glycosylated hemoglobin

Tests for Pickwickian syndrome e.g. hypercarbia, polycythemia

Sleep study with multiple sleep latency testing.

Imaging Studies

MRI of the head for pituitary.

Serial dual energy x-ray absorptiometry (DEXA) scanning for detection and monitoring of osteoporosis.

X ray films for Scoliosis.

Chest radiography for cor pulmonale.

X ray extremities for limp evaluation, hip films to screen for hip dysplasia.

Abdominal radiography.

Abdominal ultrasonography, CT scanning and gastrointestinal series for acute gastric dilation, cholelithiasis, or pancreatitis.

Management and Treatment

Initial management of hypotonia or poor feeding.

Management of obesity and scoliosis and osteoporosis and diabetes mellitus.

Behavioural Therapy.

Occupational and physical therapy to promote acquisition of gross and fine motor skills and to strengthen spinal musculature in order to minimize scoliosis.

Encouragement of physical activity at home, at school is essential for modulation of weight.

Surgical Care for treatment of complications of obesity, treatment of cryptorchidism, scoliosis intervention and abdominal issues. Tonsillectomy, adenoidectomy, or tracheostomy placement may be required in patients with obstructive sleep apnoea.

Homoeopathic Treatment

Short repertory of Prdaer Willi Syndrome—

BACK - CURVATURE of spine - Lateral curve- sil.

BACK - CURVATURE of spine- acon. agar. ant-c. **ASAF**. aur. bar-c. **Bar-m**. bell. bry. **CALC-F**. calc-i. **Calc-p**. **CALC-S**. **CALC**. **Carb-v**. carbn-s. caust. cic. clem. coloc. **Con**. dros. dulc. ferr-i. hecla hep. ip. kali-c. lach. **Lyc**. **MERC-C**. **Merc**. mez. nat-c. nat-m. nux-v. op. **PH-AC**. **Phos**. plb. psor. **Puls**. rhus-t. ruta sabin. sep. **SIL**. staph. **SULPH**. syph. tarent. ther. thuj. tub.

BLADDER - URINATION – involuntary- abies-c. acet-ac. **Acon**. agar. **AIL**. alco. allox. **Aloe** alum-sil. **Alum**. alumn. am-c. am-m. anac. anan. androc. ant-c. ant-t. antip. **APIS** apoc. arbin. **Arg-met**. **ARG-N**. arist-cl. **Arn**. **ARS-I**. **ARS**. asthm-r. atro. aur-m. aur-s. bamb-a. bapt. **Bar-act**. **Bar-c**. bar-i. bar-m. **BELL**. benz-ac. borx. brach. **Bry**. **Bufo** cact. calam. calc-i. **Calc-p**. calc-sil. calc. **Camph**. cann-i. cann-s. **Canth**. caps. carb-an. **Carb-v**. carbn-dox. carbn-s. carc. casc. **CAUST**. **Cedr**. cere-s. cham. chen-a. chen-v. **Chin**. chinin-ar. chlam-tr. chlol. **Cic**. cemic. **Cimx**. **Cina** clem. cob-n. cocc. **Colch**. coloc. **Con**. crot-h. cub. cupr. cycl. dam. daph. der. **Dig**. dios. dros. **DULC**. **Echi**. epig. **Equis-h**. ery-a. eucal. eup-per. **Eup-pur**. ferr-ar. ferr-i. **Ferr-p**. ferr. **Fl-ac**. galla-q-r. **Gels**. graph. grat. guaj. **Guare**. ham. **Hell**. **Hep**. **Hydr-ac**. **Hydr**. hydrang. **Hyos**. **Ign**. **Iod**. ix. kali-ar. kali-br. kali-c. kali-cy. kali-m. kali-n. **Kali-p**. **Kreos**. **Lac-c**. lac-d. **Lach**. lat-m. lath. **Laur**. led. lina. **Lup**. **LYC**. lycpr. lyss. m-arct. m-aust. mag-c. mag-m. mag-p. mag-s. mand. med. meny. merc-c. **Merc**. mill. morg-g. **Mosch**. **Mur-ac**. **Nat-ar**. **Nat-c**. **NAT-M**. nat-p. nat-s. nat-sil. **Nit-ac**. nitro-o. **NUX-M**. **Nux-v**. oena. ol-j. **Olnd**. oncor-t. **Op**. ox-ac. pareir. **Petr**. **Ph-ac**. **PHOS**. phys. physala-p. pic-ac. pix **Plan**. plb. plut-n. **Podo**. **PSOR**. **PULS**. pyrog. rad-br. rat. rheum rhus-a. **RHUS-T**. rumx. russ. **Ruta** sabal sang. **Sanic**. santin. sapin. sars. scroph-xyz. **Sec**. **Sel**. senec-j. seneg. **SEP**. sil. **Spig**. **Spong**. **Squil**. **STAPH**. still. **Stram**. stront-c. stry-xyz. stry. sul-ac. sul-i. sulfonam. **Sulph**. symph. syph. tab. **Tarax**. tarent. **Ter**. **Thuj**. thyr. til. tritic-vg. tritic. tub. uran-n. urt-u. ust. **Uva Verat**. **Verb**. vesp-xyz. vesp. vib. viol-t. visc. xero. zinc-p. zinc.

EXTREMITIES – SWELLING- absin. acet-ac. apis aran-ix. **Arist-cl**. **Arn**. ars. aur-ar. **Bamb-a**. **Bar-c**. both. bro-s-gau. but-ac. buth-a. cadm-met. calc-ar. calc-f. carb-v. **Cardios-h**. cary. chin. chinin-s. chord-umb. cob-n. conch. cortico. cortiso. crot-h. **Dulc**. fuma-ac. hip-ac. kali-ar. kali-p. **Kalm**. lach. lat-m. med. **MERC-SUL**. merc. morg-p. nat-ar. nat-pyru. op. oxal-a. **Petr**. plb. rauw. rhus-t. ribo. ruta **Sec**. **Sil**. spig. spong. still. suis-pan. tritic-vg. vanil. vip. x-ray

FEMALE GENITALIA/SEX - ATROPHY – Ovaries- apis bar-c. **Bar-m**. **Carbn-s**. **Con**. helon. **IOD**. orch. ov. plb. x-ray

FEMALE GENITALIA/SEX - ATROPHY – Uterus- **BAR-C**. calen. caul. iod. plb. ust.

FEMALE GENITALIA/SEX – ATROPHY- bufo

FEMALE GENITALIA/SEX - INFANTILISM; genital- bar-c. calc-hp. calc-p. chim. con. ferr. helon. iod. **Ov**. phos. senec.

FEMALE GENITALIA/SEX - MENSES - delayed in girls, first menses- **Abrom-a**. acon. agn. alet. am-c. ant-c. apis aur-s. **Aur**. **Bar-c**. bar-m. bry. **Calc-p**. calc-s. **Calc**. **Carbn-s**. castm. caul. **CAUST**. chel. cic. cemic.

cocc. **Con.** croc. cupr. dam. dig. dros. dulc. **Ferr.** **GRAPH.** guaj. **Ham.** helon. hyos. **KALI-C.** **Kali-p.** kali-perm. lac-d. lach. lith-f. **Lyc.** **Mag-c.** mag-m. **Mang.** merc. nat-lac. **NAT-M.** **Petr.** phos. polyg-h. **PULS.** sabad. **Sabin.** sang. sars. **SENEC.** **Sep.** sil. spig. staph. stram. stront-c. **Sulph.** **Tub.** valer. verat. vib. **Zinc.**

GENERALS - DEVELOPMENT – slow- bac. bar-c. bufo calc-p. **Calc.** caust. cupr. kreos. lac-d. mag-m. med. nat-m. pin-s. sil. sulph. thyr. toxo-g.

GENERALS - DIABETES MELLITUS- abrom-a. acet-ac. adren. aether alf. all-s. allox. aloe alumn. am-act. anthrac. apoc. arg-met. arg-n. arist-m. **Ars-br.** ars. asc-c. aspar. aur-m-n. aur. bar-m. **Bor-ac.** bov. brid-fr. calc-p. calc-sil. calc. canth. carb-ac. carb-v. carc. card-m. **Carl.** caust. cean. cephd-i. chel. chim. **Chion.** chlol. chlorpr. clem. coca cod. coff. coloc. con. cop. cortico. cortiso. cub. cupr-act. cupr-ar. cupr. cur. eup-pur. ferr-i. ferr-m. ferr-p. fl-ac. flor-p. friedr. gal-ac. galeg. glyc. **Gymne.** hed. helon. hydrang. hygroph-s. indgf-a. ins. **Inul.** iod. iris kali-act. kali-br. kali-chl. kali-i. kali-p. kiss. kreos. **Lac-ac.** lac-d. lach. led. lept. lith-c. lyc. lycps-v. mag-act. mag-o. mag-p. mag-s. mang-act. med. meny. merc-d. merc. moni. morind-l. morind-m. morph. mosch. mur-ac. murx. nat-ch. nat-lac. nat-m. nat-p. **NAT-S.** nauc-l. nep. nit-ac. nux-v. **Op.** orthos-s. oxyg. pancr. peps. perh. ph-ac. **Phase.** phlor. phos. pic-ac. pilo. plan. plb. podo. rad-br. rad-met. ran-b. rat. **Rhus-a.** rhus-r. rhus-t. sacch-l. sal-ac. sanic. sarcol-ac. saroth. sep. **Ser-ang.** sil. spong. **Squil.** stict. stront-c. stry-ar. sul-ac. sulfonam. sulph. syph. **SYZYG.** tarent. **TER.** **Terebe.** term-a. thuj. thyr. uran-m. **Uran-n.** **Urea** vanad. vichy-g. vinc-r. vince.

GENERALS – HYPOTONY- atra-r. gels. **Psor.** ser-a-c.

GENERALS - INFLAMMATION - Blood vessels – Veins- acon. agar. **All-c.** ant-c. **Ant-t.** apis arist-cl. **Arn.** **Ars.** **Bapt.** **Bell.** both. **BRY.** **Bufo** calc-ar. **Calc-f.** **CALC.** carb-v. carbn-s. **Cham.** **Chin.** chlorpr. **Crot-h.** eberth. **Ferr-p.** graph. **Ham.** hecla hep. **Hippoz.** hir. **Iod.** **Kali-c.** kali-chl. kali-m. kreos. **LACH.** **Led.** **Lyc.** **Lycps-v.** mag-c. mag-f. merc-cy. merc-i-r. merc. morg-p. **Mur-ac.** **Nat-s.** nux-v. parathyr. phos. prot. **Puls.** rhod. **RHUS-T.** **Sep.** **Sil.** spig. streptoc. stront-br. stront-c. sulfa. **Sulph.** thiop. thuj. verat. vip-a. **VIP.** zinc.

GENERALS - INFLAMMATION - Blood vessels- acon. **Ant-t.** apis **ARN.** ars-i. **ARS.** aur. **BAR-C.** **BELL.** bufo calc. canth. carb-v. cham. chin. **Cupr.** **Ham.** hell. **Kali-c.** kreos. lach. lyc. nux-v. **Puls.** rhus-t. sep. sil. spig. **SULPH.** thuj. **Verat-v.** **VERAT.** **VIP.** zinc.

GENERALS - OBESITY - children; in- **Ant-c.** **Bad.** bar-c. bell. **Brom.** **CALC.** **Caps.** cina **Coloc.** **Ferr.** graph. guaj. **Ip.** **Kali-bi.** kali-c. puls. sacch. sars. seneg. sulph.

GENERALS - OBESITY – flabby- lac-d.

GENERALS - OBESITY - Legs thin; body fat but- am-c. **Am-m.** ant-c. graph. lith-c. plb.

GENERALS – OBESITY- **Acon.** adam. adon. agar. ail. alco. all-s. **Am-br.** **Am-c.** am-caust. am-f. **Am-m.** ambr. **ANAC.** **Ang.** **Ant-c.** ant-t. apis aq-mar. aran-ix. **Arg-n.** arist-cl. arn. **Ars.** **Asaf.** aur-m. aur-s. **Aur.** bac. bar-br. bar-c. bar-i. bar-met. **Bell.** berb. bism-sn. blatta-o. borx. brom. bry. bufo calad. calc-act. **Calc-ar.** calc-caust. calc-lac. calc-m. calc-met. calc-o. **Calc-p.** calc-s. **CALC.** **Calo.** camph. canth. **CAPS.** carb-v. carc. **Carl.** caust. cham. chin. chlorpr. chr-m. chr-met. chr-s. cic. cimid. cinnb. clem. **Coc-c.** coca cocc. coloc. con. cortiso. **Croc.** crot-h. **Cupr.** cyna. dig. dulc. **Elaps** euph. euphr. falco-pe. ferr-i. **Ferr-n.** **FERR.** **Fuc.** gamb. gink-b. glycyr-g. **GRAPH.** guaj. hafn-met. hell. **Hura** **Hyos.** ign. iod. ip. irid-met. **Kali-bi.** kali-br. **Kali-c.** kali-met. kola lac-c. **Lac-d.** lac-h. lach. lanth-met. laur. lith-c. lith-f. lith-i. lith-met. lith-p. lith-s. lob-e. lob. **Lyc.** lycpr. mag-c. **Mag-n.** mag-p. mang-act. **Mang-n.** med. merc-d. merc-i-f. merc. moly-met. mur-ac. nat-ar. nat-c. **NAT-M.** nicc-met. nicc-s. **Nitro.** nux-m. nux-v. olnd. op. osm-met. ozone pert-vc. **Phos.** **PHYT.** pitu-a. plat. plb-m. plb-p. plb. positr. **Puls.** rauw. rhen-met. rheum rhus-t. rumx. ruta sabad. sabal sacch. sars. sel. seneg. sep. sil. spig. spong. staph. stram. stront-c. stroph-h. **Sulph.** tant-met. thal-met. thuj. **Thyr.** **Thyroid.** tung-met. tus-fr. valer. vanil. verat. viol-o. **Zinc-n.**

GENERALS – OSTEOPOROSIS- arg-met. bacls-7. calc-f. cortico. cortiso. dys. fl-ac. morg-p. palo.

GENERALS - RELAXATION – physical- acon. **Aeth.** agar. agn. agra. aids. alet. aloe alum. ant-c. ant-t. aran. arn. ars. asar. aster. aur. bar-c. bell. bism. borx. bov. bry. calc. camph. **Caps.** caust. cham. chel. chin. cic. cina cocc. coff. colch. coli. cory. cupr. cycl. cystein-l. dig. dulc. euph. ferr. fuma-ac. gels. graph. hell. hep. hydr-ac. hydrog. hyos. ign. ip. kali-c. kali-n. ketogl-ac. **Lac-h.** lach. lil-t. linu-c. lob. lyc. **Mag-c.** mangi. med. meny. merc-cy. merc. micr. morph. **MUR-AC.** nat-c. **Nat-chl.** nat-m. nit-ac. nux-m. nux-v. olnd. op. oxal-a. par. **Passi.** petr. ph-ac. phos. plat. plb. ran-s. rhod. rhus-t. ribo. ruta sabad. sabin. sel. seneg. sep. sil. spig. spong. stann. staph. stram. streptoc. suis-pan. sulph. tarax. tritic-vg. tub. ulm-c. valer. vanil. verat. viol-o. viol-t. zinc.

GENERALS - TUMORS - atheroma, steatoma- **Agar.** ant-c. anthraci. arg-n. **Bar-c.** **Bell.** benz-ac. brom. **Calc.** caps. caust. clem. **Con.** crat. **GRAPH.** **Guare.** **Hep.** kali-br. **Kali-c.** kali-i. lac-ac. lach. **Lob.** lyc. m-arct. mez. nat-c. **Nit-ac.** **Ph-ac.** **Phyt.** plb. rhus-t. **Sabin.** **Sil.** spong. staph. **Sulph.** thuj. vanad.

GENERALS - WALKING - learning to walk – late- acon. **Agar.** all-s. arg-n. ars-s-f. **Ars.** aur-m-n. **Bar-c.** bell. calc-f. **CALC-P.** **CALC.** **Carb-v.** **CAUST.** cupr. ferr. fl-ac. kali-i. lil-t. lyc. mag-c. med. merc. **NAT-M.** **Nit-ac.** nux-v. **Ph-ac.** **Phos.** pin-s. **Sanic.** sep. **Sil.** sulph. thlas. thuj.

MALE GENITALIA/SEX - ATROPHY – Penis- agar. aloe amyg. ant-c. arg-met. **Arg-n.** **Berb.** caj. **Cann-i.** carbn-s. **IGN.** **LYC.** merc-sul. merc. op. pic-ac. plb. staph.

MALE GENITALIA/SEX - ATROPHY – Testes- agn. ant-c. ant-o. antho. **Arg-n.** aur-i. **Aur.** bar-c. bufo **Caps.** **Carb-an.** carbn-s. cerc-s. cere-s. chim. con. **Gels.** ign. **Iod.** kali-br. **KALI-I.** **Lyss.** meph. plb. **Rhod.** sabal staph. testis vanil. x-ray zinc.

MALE GENITALIA/SEX – ATROPHY- ant-c. arg-n. bamb-a. **BAR-C.** bufo carb-an. cer-s. cere-s. iod. kali-i. lyc. phos. staph.

MALE GENITALIA/SEX - CRYPTORCHISM – Prepubic- aur-m. aur. **Bar-c.** calc-f. calc-p. calc. caust. **Con.** **Fl-ac.** **Syph.** thyr.

MALE GENITALIA/SEX – CRYPTORCHISM- aloe aur. bufo iod. psor. sil. syph. **Thyr.** tub.

MALE GENITALIA/SEX - RETRACTION – Testes- agar. **Agn.** alum. alumn. arg-n. aur. **Bar-c.** bell. **Berb.** brom. bufo calc-act. **Calc.** camph. **Cann-s.** **Canth.** chin. cic. **CLEM.** coloc. crot-t. euphr. iod. **M-aust.** meny. **Merc.** nit-ac. **Nux-v.** ol-an. op. par. pareir. petr-ra. phos. pitu-a. **Plb.** psor. puls. **Rhod.** sabal sec. sil. **Stram.** sulph. syph. thuj. thyr. tub. **Zinc.**

MIND - MOOD – changeable- abrom-a. acon-l. **Acon.** adam. agar. agath-a. agn. alco. aloe alum-p. alum-sil. **Alum.** am-c. ambr. anac. anan. androc. ang. anh. ant-c. ant-m. **Ant-met.** ant-t. **Apis** arg-met. **Arg-n.** arg-p. arn. ars-h. ars-i. **Ars.** asaf. asar. astra-e. aur-i. **Aur-m-n.** aur-m. aur-s. **Aur.** bac. bamb-a. **Bar-act.** **Bar-c.** bar-i. **Bell.** bism-sn. bism. **Borx.** bov. brucel. bry. bufo buth-a. cadm-met. cadm-s. calc-s. calc-sil. **Calc.** camph-mbr. cann-i. cann-s. canth. caps. carb-an. carb-v. carbn-o. carbn-s. **Carc.** carl. cassia-s. castm. caul. caust. cerstig-w. cham. **Chin.** chir-fl. choc. chr-met. chr-s. cic. cimid. cina cob. coc-c. coca coca-c. **Cocc.** **Coff.** con. cortico. **Croc.** **Cupr.** cur. cycl. cygn-be. cypra-eg. **Des-ac.** **Dig.** dioxi. dros. emb-r. eup-per. falco-pe. ferr-ar. ferr-i. **Ferr.** form. fum. gels. gink-b. graph. guare. heroin. hyos. **IGN.** iod. ip. irid-met. **Kali-c.** kali-p. kali-s. kali-sil. **Kola** lac-c. lac-d. lac-h. lac-leo. lac-loxod-a. lac-mat. lach. lachn. laur. led. lil-t. limest-b. lith-i. luna **LYC.** m-arct. m-aust. **Mag-c.** mang-act. mang-i. med. melal-alt. meny. merc-c. merc-i-f. **Merc.** mez. **Moni.** morph. mosch. mur-ac. nat-c. nat-m. neon nid. nit-ac. **NUX-M.** nux-v. onop. op. ozone **Petr.** ph-ac. phel. **Phos.** pitu-gl. plac-s. plan. **Plat.** plb. propr. **Psor.** **PULS.** pulx. ran-b. rat. rheum rhod. rhus-g. **Rhus-t.** rubd-met. sabad. sal-fr. sang. sanic. sabin. **SARS.** scler. senec. seneg. **Sep.** ser-a-c. sil. spect. spig. spong. **Stann.** **Staph.** **Stram.** streptoc. suis-em. **Sul-ac.** sul-i.

sulph. Sumb. suprar. **Symph. Syph.** tab. taosc. tarent. tax. thal-xyz. thiam. thuj. **Tub. Valer.** vanil. verat. verb. viol-o. yuc. zinc-i. zinc-m. zinc-n. zinc-p. **Zinc-val. ZINC.** ziz.

MIND – OBSTINATE- abrot. **Acon.** act-sp. **Agar.** alco. aloe alum-p. alum-sil. **ALUM.** alumn. am-c. am-m. ambr. **ANAC.** androc. **Ant-c.** ant-m. ant-t. apis **ARG-N.** arizon-l. arn. ars-s-f. **Ars.** arum-t. aur-ar. aur-m. n. aur-s. aur. bamb-a. bar-act. bar-c. bell-p-sp. **BELL.** bism-sn. bora-o. **Bry.** bufo caes-met. calc-ar. calc-p. **Calc-s. CALC.** camph. canth. **Caps.** carb-an. carb-v. carbn-s. carc. **Caust. CHAM.** chel. **Chin.** chinin-s. chir-fl. choc. **Cina** coca coloc. croc. **Crot-h.** cupr. cycl. cygn-be. dendr-pol. des-ac. dig. dros. **Dulc.** emb-r. euph. ferr-ar. ferr-p. ferr. galv. gard-j. guaj. hell. **Hep.** hura hydrog. **Hyos. Ign.** ignis-alc. ip. kali-ar. kali-bi. **Kali-c.** kali-chl. kali-i. kali-m. **Kali-p.** kali-s. kali-sil. kalm. kreos. lac-e. lac-f. lach. **Lyc. Mag-m. Med.** medul-os-si. menis. merc. mez. morph. mosch. mur-ac. nat-c. nat-m. nat-sil. nicc-met. **Nit-ac. NUX-V.** oscilloc. osm-met. oxyg. p-benzq. **Pall.** pert-vc. petr. **Ph-ac.** phel. phos. plat. plb. positr. **Prot. Psor.** puls. rhus-t. ruta ruth-met. sanic. sec. sep. **Sil. Spong. Staph.** stram. **Sulph. Symph. syph. TARENT.** tax. **Thuj.** thymol. **Tub.** verat. viol-o. viol-t. zinc-p. zinc.

MIND - RETARDATION; mental – children- aur. bufo **Carc.** iod. lyc. merc. phos. plb. sil. sulph. tub. zinc.

MIND - RETARDATION; mental- ambr. ars-i. aur. bar-m. **Bufo** carc. cic. des-ac. iod. kali-br. lyc. merc. pert. phos. plb. sil. sulph. syph. **Tub.** zinc.

MIND - THOUGHTS – compelling- **Anac.** anh. ant-c. arg-n. **Ars.** aur. bell-p. brom. calc. carb-v. carc. **Caust.** con. cupr-act. cupr. foll. **HYOS. Ign. Iod.** kali-c. lac-c. **Lach.** lyss. manc. **MED.** merc. nat-m. **Nat-s.** nit-ac. **Nux-v.** passi. phos. pin-s. **Plat.** psor. puls. **Rat.** rhus-t. sil. **Staph.** sulph. **Symph.** thuj. tub. verat.

RESPIRATORY SYSTEM - Respiration – Arrested- ars. bov. camph. hydr-ac. **Lat-m.** lyss. upa.

SKIN – INTERTRIGO- acon. **Aeth.** agn. **Am-c. Ambr.** ant-t. arist-cl. arn. ars. **Bar-c.** bell. **Borx. Calc-s.** calc-sil. calc. **Carb-v. CAUST.** **Cham. Chin.** fago. **GRAPH.** **Hep. Hydr. Ign.** jug-r. kali-ar. kali-br. **Kali-c.** kali-chl. kali-m. kali-s. kali-sil. **KREOS. Lyc. Mang. Merc.** mez. **Nat-m.** nat-p. nat-s. **Nit-ac.** nux-v. ol-an. olib-sac. olnd. ox-ac. **Petr.** ph-ac. phos. **Phyt.** plb. psor. puls. rhus-t. ruta sabin. **Sep. Sil. squil. Sul-ac. SULPH.** syph. tub. zinc-o.

STOMACH - APPETITE - capricious appetite- ail. alum-sil. ang. arizon-l. arn. ars. arum-t. aster. bar-c. bell. bit-ar. **BRY.** bufo calad. calc. **Carb-an.** carbn-s. carc. cham. **CHIN.** chir-fl. choc. **Cimic. CINA Coc-c.** coca coli. croc. fago. ferr. gran. graph. **Hep. IGN. Iod. Ip.** irid-met. kali-bi. kali-s. kreos. lac-loxod-a. **Lach.** limen-b-c. luna mag-c. **Mag-m.** mang-p. merc-i-f. merc. nat-m. nux-m. nux-v. petr-ra. petr. **Phos. PULS.** rheum rhus-g. rhus-t. ruta sabal **Sang.** sil. spong. staph. sulph. sumb. suprar. sym-r. symph. syph. tep. **Ther.** tritic-vg. **Tub.** zinc-chl. zinc-p. zinc.

STOMACH - APPETITE – constant- bamb-a. bov. calc-p. cocc. fl-ac. gran. **Kali-bi.** kali-p. **Merc.** moni. musca-d. myric. **Nat-c. Nat-m.** plut-n. psil. rat. tab.

STOMACH - APPETITE - eating; even after- allox. cic. sacch. spong. tritic-vg.

STOMACH - APPETITE – increased- **ABIES-C.** abrom-a. abrot. acal. acon-ac. **Acon.** adam. **Agar.** agath-a. agn. **Aids.** ail. alf. **All-c.** all-s. allox. aloe alum-p. alum-sil. **Alum. Alumn. AM-C.** am-m. anac. anan. androc. ang. anh. ant-c. ant-m. ant-met. ant-t. **Aq-mar.** ara-maca. **ARG-MET.** arist-cl. arizon-l. arn. **Ars-i. ARS.** asaf. asar. aster. atp. aur-i. **Aur.** bac. **Bapt-c. Bar-c. Bar-i. Bar-m.** bar-ox-suc. bell-p-sp. bell-p. **Bell. Berb.** beryl. bism. bit-ar. borx. bov. brass-n-o. bros-gau. bry. bung-fa. cadm-met. calad. calc-i. **Calc-p. CALC-S.** calc-sil. **CALC.** camph. **CANN-I.** cann-s. canth. caps. carb-ac. **Carb-an.** carb-v. carbn-s. caul. **Caust.** cham. **CHIN. Chinin-s.** choc. chord-umb. cic. **CINA CINNB.** cit-ac. clem. cob-n. coc-c. coca-c. **Cocc.** coff. colch. coli. coloc. **Con.** cop. corian-s. cortiso. corv-cor. crot-c. cub. cupr. cycl. cygn-be. cypra-eg. cystein-l. des-ac. dig. dios. dream-p. dros. dulc. **Elaps** ephe-si. equis-h. eug. euph. euphr.

falco-pe. **Ferr-ar.** **Ferr-i.** **Ferr.** **Fl-ac.** flor-p. fum. galeoc-c-h. galla-q-r. gamb. **Gels.** gent-c. ger-i. germ-met. glycyr-g. gran. **GRAPH.** grat. **Guaj.** **Guare.** haliae-lc. hed. hell. helo-s. helodr-cal. hep. heroin. hir. hura hydr-ac. hydr. hydrog. hyos. **Ign.** ind. **IOD.** jug-c. jug-r. kali-ar. kali-bi. kali-br. kali-c. kali-chl. kali-i. kali-m. kali-n. kali-p. **Kali-s.** kreos. **Lac-ac.** **Lac-c.** **Lac-h.** **Lac-loxod-a.** lac-lup. **Lach.** lact. laur. led. lept. lil-t. limen-b-c. limest-b. luf-op. **LYC.** lyss. m-ambo. m-arct. m-aust. mag-c. mag-i. **Mag-m.** mag-p. maias-l. mand. mang-p. mang. marb-w. med. meny. **Merc-c.** **Merc.** mez. mosch. mucs-nas. **Mur-ac.** **Myric.** nad. **Nat-ar.** **Nat-c.** nat-i. **NAT-M.** nat-ox. **Nat-p.** nat-pyru. **Nat-s.** neon nicotam. **Nit-ac.** **Nux-m.** **NUX-V.** oci-sa. olib-sac. **OLND.** oncor-t. onos. **Op.** orot-ac. osteo-a. ox-ac. oxal-a. ozone pant-ac. par. **Pert-vc.** petr-ra. **PETR.** **Ph-ac.** **PHOS.** phys. **Pic-ac.** pin-con. plac-s. plat. plb. plut-n. podo. polys. positr. propl. propr. pseuts-m. **PSOR.** ptel. **PULS.** pycnop-sa. pyrid. ran-b. raph. **Rat.** rauw. rein. rheum rhod. rhus-g. rhus-t. ribo. ros-d. ruta **SABAD.** sal-al. sal-fr. sars. sec. sel. seneg. **Sep.** **Sil.** skat. spect. spig. spong. squil. **Stann.** **Staph.** stram. stront-c. succ-ac. suis-em. suis-hep. suis-pan. sul-ac. sul-i. sulfonam. **SULPH.** sumb. symph. tab. taosc. tarent. tax. tep. ter. tetox. **Teucr.** ther. thiam. thuj. thymol. tritic-vg. tung-met. ust. valer. vanil. **VERAT.** verb. vero-o. vip. visc. xan. zinc-p. zinc.

STOMACH - APPETITE – insatiable- abies-c. aids. allox. androc. ang. anh. ant-c. **Arg-met.** arg-n. arum-t. asc-t. aur. bamb-a. bar-c. bell-p. **Bell.** bung-fa. cadm-met. **Cic.** cina cypra-eg. dulc. **Ferr-i.** **Ferr.** hydrog. ign. **IOD.** Kola lil-t. limest-b. **LYC.** marb-w. merc. **Moni.** nat-pyru. nauf-helv-li. ozone petr. plat. propl. puls-n. puls. rauw. rhus-g. **Sec.** **Sep.** **Spong.** squil. stann. staph. thuj. tub. ulm-c. v-a-b. visc. **Zinc.**

STOMACH - APPETITE – ravenous- abies-c. abrot. acet-ac. adon. **Agar.** agath-a. agn. **Alf.** **All-c.** all-s. allox. alum-p. alum-sil. **Alum.** **AM-C.** am-m. **Anac.** anan. ang. ant-t. aq-mar. ara-maca. **ARG-MET.** arn. ars-br. **ARS-I.** ars-s-f. **ARS.** asaf. aur-ar. aur-i. aur-s. **Aur.** bac. bamb-a. bar-c. **Bar-i.** bar-m. bar-s. bell. **Berb.** bov. brass-n-o. brass. **Bry.** cact. calad. calc-i. **CALC-P.** **CALC-S.** calc-sil. **CALC.** calen. camph. **CANN-I.** cann-s. cann-xyz. caps. carb-ac. **Carb-an.** carb-v. **CARBN-S.** carc. card-m. cartl-s. cassia-s. caul. **Caust.** cham. chel. **CHIN.** **Chinin-ar.** chinin-s. chir-fl. **Cic.** cimic. **CINA** clem. clerod-i. **Coc-c.** **Cocc.** **Coff.** **Colch.** **Coloc.** **Con.** conch. cop. corian-s. **Corv-cor.** crot-c. cupr. cygn-be. cypra-eg. dros. dulc. **Elaps** equis-h. **Eup-per.** falco-pe. **Ferr-ar.** **Ferr-i.** ferr-p. **FERR.** **Fl-ac.** galla-q-r. gamb. gels. glyc. gran. **GRAPH.** **Guaj.** **Guare.** hell. hep. heroin. hura hydrog. **Hyos.** ichth. **Ign.** ind. **IOD.** irid-met. jug-c. kali-ar. kali-bi. kali-c. kali-chl. kali-m. **Kali-n.** kali-p. kali-s. kali-sil. **Kola** kreos. **Lac-ac.** lac-c. lach. lap-a. lap-la. laur. lil-t. lith-i. lob. **LYC.** lyss. m-ambo. m-arct. m-aust. mag-c. mag-m. mag-p. mang-i. marb-w. medul-os-si. melal-alt. meny. **Merc-c.** merc-i-f. **Merc.** **Mez.** **Moni.** **Mur-ac.** myric. **Nat-ar.** **Nat-c.** **NAT-M.** nat-ox. **Nat-p.** **Nat-s.** nat-sil. nicotam. **Nit-ac.** **Nux-m.** **NUX-V.** **Ol-j.** **Olib-sac.** **OLND.** **Op.** osteo-a. ox-ac. par. petr-ra. **PETR.** petros. **Ph-ac.** **PHOS.** phys. pime. **Plat.** plb. **Podo.** positr. psil. **PSOR.** ptel. **PULS.** pycnop-sa. pyrid. **Rat.** rhus-g. **Rhus-t.** ros-d. rumx. ruta **SABAD.** sanic. **Sec.** sel. seneg. **Sep.** **SIL.** sphing. spig. **Spong.** squil. **Stann.** **Staph.** stront-c. sul-ac. sul-i. **SULPH.** tab. tarent. tep. ter. teucr. ther. **Thuj.** **Thyr.** tritic-vg. tub. **Uran-n.** ust. valer. vanil. **VERAT.** visc. zinc-i. zinc-p. zinc.

Homoeopathic remedies in decreasing order of indication in Prader Willi Syndrome—

1. bar-c.	14. caust.	27. carb-v.	40. carbn-s.
2. sil.	15. lach.	28. con.	41. cic.
3. merc.	16. nat-m.	29. agar.	42. nit-ac.
4. sulph.	17. nux-v.	30. arg-n.	43. syph.
5. calc.	18. puls.	31. calc-p.	44. bry.
6. lyc.	19. rhus-t.	32. chin.	45. cham.
7. phos.	20. staph.	33. cupr.	46. med.
8. plb.	21. bufo	34. ferr.	47. op.
9. iod.	22. kali-c.	35. graph.	48. petr.
10. aur.	23. sep.	36. ign.	49. ph-ac.
11. ant-c.	24. thuj.	37. spong.	50. psor.
12. bell.	25. tub.	38. acon.	51. verat.
13. ars.	26. zinc.	39. arn.	52. ant-t.

53. caps.	110.allox.	167.moni.	223.vip.
54. carc.	111.alum-sil.	168.mosch.	224.visc.
55. dulc.	112.am-m.	169.nat-ar.	225.lac-h.
56. hep.	113.ang.	170.nat-p.	226.ozone
57. kreos.	114.arist-cl.	171.rheum	227.chir-fl.
58. mag-c.	115.ars-i.	172.rhus-g.	228.positr.
59. nat-c.	116.aur-s.	173.sabal	229.falco-pe.
60. ruta	117.borx.	174.sabin.	230.petr-ra.
61. spig.	118.calc-f.	175.sel.	231.cygn-be.
62. am-c.	119.calc-sil.	176.stann.	232.cypra-eg.
63. apis	120.cimic.	177.symph.	233.abrot.
64. cina	121.kali-ar.	178.tab.	234.alf.
65. coloc.	122.kali-chl.	179.abies-c.	235.all-c.
66. hyos.	123.kali-m.	180.abrom-a.	236.ant-m.
67. kali-p.	124.kali-s.	181.acet-ac.	237.aq-mar.
68. mur-ac.	125.lac-c.	182.ail.	238.ars-s-f.
69. agn.	126.lil-t.	183.alco.	239.arum-t.
70. aloe	127.lyss.	184.alum-p.	240.asar.
71. arg-met.	128.olnd.	185.anan.	241.aster.
72. bamb-a.	129.rhod.	186.anh.	242.aur-ar.
73. bar-m.	130.sabad.	187.aur-i.	243.bar-act.
74. calc-s.	131.sanic.	188.aur-m-n.	244.bell-p.
75. camph.	132.sars.	189.aur-m.	245.bism-sn.
76. canth.	133.squil.	190.cadm- met.	246.bism.
77. carb-an.	134.sul-ac.	191.calad.	247.carb-ac.
78. clem.	135.valer.	192.calc-ar.	248.carl.
79. cocc.	136.zinc-p.	193.calc-i.	249.cere-s.
80. ferr-i.	137.all-s.	194.chinin-s.	250.chim.
81. fl-ac.	138.alumn.	195.choc.	251.chlorpr.
82. kali-br.	139.ambr.	196.colch.	252.cob-n.
83. plat.	140.androc.	197.cortico.	253.coli.
84. stram.	141.asaf.	198.des-ac.	254.cop.
85. thyr.	142.bac.	199.euph.	255.cub.
86. alum.	143.bar-i.	200.gran.	256.elaps
87. anac.	144.berb.	201.ham.	257.equis-h.
88. bov.	145.brom.	202.helon.	258.eup-per.
89. dig.	146.cann-i.	203.hura	259.euphr.
90. dros.	147.cann-s.	204.hydr-ac.	260.gamb.
91. gels.	148.caul.	205.irid-met.	261.hydr.
92. guaj.	149.chel.	206.kali-n.	262.lat-m.
93. hell.	150.coc-c.	207.kali-sil.	263.lith-c.
94. ip.	151.coca	208.kola	264.lith-i.
95. kali-bi.	152.coff.	209.lac-ac.	265.mang-act.
96. kali-i.	153.cortiso.	210.lob.	266.mang.
97. lac-d.	154.croc.	211.merc-i-f.	267.morg-p.
98. mag-m.	155.crot-h.	212.morph.	268.myric.
99. meny.	156.cycl.	213.ox-ac.	269.nat-sil.
100.mez.	157.ferr-ar.	214.pic-ac.	270.oxal-a.
101.nat-s.	158.ferr-p.	215.podo.	271.par.
102.nux-m.	159.guare.	216.rauw.	272.phys.
103.rat.	160.hydrog.	217.sang.	273.phyt.
104.sec.	161.laur.	218.sul-i.	274.pin-s.
105.seneg.	162.led.	219.ter.	275.plan.
106.stront-c.	163.m-arct.	220.ther.	276.ran-b.
107.tarent.	164.m-aust.	221.ust.	277.ribo.
108.tritic-vg.	165.mag-p.	222.viol-o.	278.rumx.
109.vanil.	166.merc-c.		279.sacch.

280. senec.	314. brass-n-o.	349. jug-c.	384. rhus-a.
281. streptoc.	315. bung-fa.	350. jug-r.	385. ros-d.
282. sulfonam.	316. buth-a.	351. kalm.	386. sapin.
283. sumb.	317. cact.	352. lept.	387. still.
284. tax.	318. calc-act.	353. lith-f.	388. suprar.
285. tep.	319. calen.	354. luna	389. tarax.
286. uran-n.	320. card-m.	355. lycpr.	390. teucr.
287. verb.	321. castm.	356. lycps-v.	391. thiam.
288. viol-t.	322. chinin-ar.	357. m-ambo.	392. thymol.
289. x-ray	323. chlol.	358. mag-s.	393. tung-met.
290. limest-b.	324. chr-met.	359. mand.	394. ulm-c.
291. marb-w.	325. chr-s.	360. mang-i.	395. vanad.
292. plut-n.	326. cinnb.	361. mang-p.	396. vib.
293. aids.	327. conch.	362. merc-cy.	397. zinc-i.
294. adam.	328. corian-s.	363. merc-d.	398. zinc-n.
295. arizon-l.	329. crot-c.	364. merc-sul.	399. osteo-a.
296. heroin.	330. cupr-act.	365. nat-lac.	400. cassia-s.
297. lac-loxod- a.	331. cur.	366. nat-ox.	401. neon
298. nat-pyru.	332. dam.	367. nicc-met.	402. coca-c.
299. olib-sac.	333. dios.	368. nicotam.	403. plac-s.
300. suis-pan.	334. emb-r.	369. ol-an.	404. ser-a-c.
301. galla-q-r.	335. eup-pur.	370. ol-j.	405. osm-met.
302. pert-vc.	336. fago.	371. ov.	406. corv-cor.
303. agath-a.	337. flor-p.	372. oxyg.	407. suis-em.
304. adon.	338. fum.	373. pareir.	408. chord- umb.
305. aeth.	339. fuma-ac.	374. passi.	409. limen-b-c.
306. alet.	340. gink-b.	375. phel.	410. cystein-l.
307. ant-met.	341. glyc.	376. pitu-a.	411. medul-os- si.
308. apoc.	342. glycyr-g.	377. propl.	412. oncor-t.
309. aran-ix.	343. grat.	378. propr.	413. absin.
310. ars-br.	344. hecla	379. prot.	414. aca
311. bap.	345. hed.	380. psil.	
312. benz-ac.	346. hir.	381. ptel.	
313. both.	347. hydrang.	382. pyrid.	
	348. ind.	383. rad-br.	

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Miscellaneous Disorders Greenspan's Basic & Clinical Endocrinology, 9e > Chapter 15. Puberty > Delayed Puberty or Absent Puberty (Sexual Infantilism) > Hypogonadotropic Hypogonadism



Prader-Willi Syndrome CURRENT Diagnosis & Treatment: Pediatrics > Chapter 35. Genetics & Dysmorphology > Nonmendelian Disorders > Disorders of Imprinting



X-Inactivation, Imprinting, and Uniparental Disomy Harrison's Online > Chapter 61. Principles of Human Genetics > Impact of Genetics on Medical Practice > Transmission of Genetic Disease > Exceptions to Simple Mendelian Inheritance Patterns



Prader-Willi Syndrome Greenspan's Basic & Clinical Endocrinology, 9e > Chapter 6. Growth > Disorders of Growth > Short Stature Due to Nonendocrine Causes > Syndromes of Short Stature



Growth Hormone Treatment of Pediatric Patients with Short Stature Basic & Clinical Pharmacology, 12e > Chapter 37. Hypothalamic & Pituitary Hormones > Anterior Pituitary Hormones & Their Hypothalamic Regulators > Anterior Pituitary & Hypothalamic Hormone Receptors > Growth Hormone (Somatotropin) > Clinical Pharmacology



Prader-Willi and Angelman Syndromes Fitzpatrick's Dermatology in General Medicine, 8e > Chapter 73. Albinism and Other Genetic Disorders of Pigmentation > Etiology, Pathogenesis, and Clinical Features > Etiology, Pathogenesis, and Clinical Features of Albinism



Congenital Hypogonadotropic Syndromes Smith's General Urology > Chapter 44. Male Infertility > Causes of Male Infertility > Pretesticular > Hypothalamic Disease



Prader-Willi syndrome is characterized by obesity, hypotonic musculature, mental retardation,... Harrison's Online > Chapter 346. Disorders of the Testes and Male Reproductive System > Disorders of the Male Reproductive Axis during Adulthood > Hypogonadotropic Hypogonadism > Congenital Disorders Associated with Gonadotropin Deficiency



A number of complex human syndromes with defined inheritance are associated with obesity (Table... Harrison's Online > Chapter 77. Biology of Obesity > Biology of Obesity: Introduction > Specific genetic syndromes



GH is approved for treatment of growth failure in Prader-Willi syndrome. Many affected individuals... CURRENT Diagnosis & Treatment: Pediatrics > Chapter 32. Endocrine Disorders > Disturbances of Growth > Short Stature > Short Stature Associated with Syndromes



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