AUSTRALIAN PRODUCT INFORMATION

LUCRIN® DEPOT PAEDIATRIC 30 MG PREFILLED DUAL-CHAMBER SYRINGE (PDS) INJECTION 3 MONTH

1. NAME OF THE MEDICINE

NON-PROPRIETARY NAME

Leuprorelin acetate

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Lucrin Depot Paediatric 30 mg: each prefilled dual chamber syringe contains 30mg leuprorelin acetate in the front chamber and 1.5 mL of diluent in the rear chamber.

For the full list of excipients, see Section 6.1 List of excipients.

3. PHARMACEUTICAL FORM

Prefilled dual chamber syringe consisting of powder for injection and diluent.

Powder for injection
White lyophilised powder once reconstituted becomes a milky suspension.

Diluent
The diluent is a clear colourless solution.

4. CLINICAL PARTICULARS

4.1 Therapeutic Indications

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection is indicated in the treatment of children with central precocious puberty (CPP).

4.2 Dose and Method of Administration

Lucrin Depot Paediatric 30 mg 3-Month PDS injection must only be prescribed after initial assessment by a paediatric endocrinologist, who is experienced in the diagnosis and management of central precocious puberty; and with the ongoing supervision of such a specialist.

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection should be administered once every three months (12 weeks) as a single intramuscular injection. The goal of therapy is to suppress pituitary gonadotropins and peripheral sex steroids, and to arrest progression of secondary sexual characteristics. Hormonal and clinical parameters should be monitored during treatment, for instance at month 2-3, month 6 and further as judged clinically appropriate, to ensure adequate suppression. In case of inadequate suppression, treatment with Lucrin should be discontinued, and other treatment options for CPP should be considered.

Do not use partial syringes or a combination of syringes to achieve a particular dose.

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection treatment should be discontinued at the appropriate age of onset of puberty at the discretion of the physician. The recommended age at which therapy for CPP should be ceased is at 11 or 12 years of age, for girls and boys respectively.

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection must not be injected intra-arterially or intravenously. It is to be used as an intramuscular injection.

As with other drugs administered by injection, the injection site should be varied periodically.

Method of administration

For optimal performance of the prefilled dual-chamber syringe (PDS) read and follow the following instructions:

1. To prepare for injection screw the white plunger into the end stopper until the stopper begins to turn.
2. Hold the syringe UPRIGHT. Release the diluent by SLOWLY PUSHING (6-8 seconds) the plunger until the first stopper is at the blue line in the middle of the barrel.
3. Keep the syringe UPRIGHT. Gently mix the microspheres (particles) thoroughly to form a uniform suspension. The suspension will appear milky. DO NOT USE if any of the powder has not gone into suspension.
4. Hold the syringe UPRIGHT. With the opposite hand pull the needle cap upward without twisting.
5. Keep the syringe UPRIGHT. Advance the plunger to expel the air from the syringe.
6. Inject the entire contents of the syringe intramuscularly at the time of the reconstitution. The suspension settles very quickly following reconstitution; therefore, Lucrin Depot Paediatric 30 mg should be mixed and used immediately. Re-shake the suspension if settling occurs.

NOTE: Aspirated blood would be visible just below the luer lock connection if the blood vessel is accidentally penetrated. If present, blood can be seen through the transparent hub of the needle.

4.3 Contraindications

Hypersensitivity to GnRH, GnRH agonists or any of the excipients in Lucrin Depot Paediatric 30 mg. There have been reports of anaphylactic reactions to GnRH agonists (including the monthly formulation of leuprorelin).

Although not expected to be relevant to the approved indication, Lucrin Depot Paediatric 30 mg is contraindicated when the patient is pregnant or may become pregnant due to embryotoxic effects and in nursing mothers (see Section 4.6 Fertility, Pregnancy and Lactation).

4.4 Special Warnings and Precautions for use

Initial Rise of Gonadotropins and Sex Steroid Levels

During the early phase of therapy, gonadotropins and sex steroids rise above baseline because of the natural stimulatory effect of the drug. Therefore, an increase in clinical signs and symptoms of puberty may be observed (see Section 5.1 Pharmacodynamic properties).

Worsening of pre-existing signs and symptoms during the first weeks of treatment may occur. Worsening of symptoms may contribute to paralysis with or without fatal complications.

Pituitary Apoplexy
During post-marketing surveillance, rare cases of pituitary apoplexy (a clinical syndrome secondary to infarction of the pituitary gland) have been reported after the administration of gonadotropin-releasing hormone agonists. In a majority of these cases, a pituitary adenoma was diagnosed, with a majority of pituitary apoplexy cases occurring within 2 weeks of the first dose, and some within the first hour. In these cases, pituitary apoplexy has presented as sudden headache, vomiting, visual changes, ophthalmoplegia, altered mental status, and sometimes cardiovascular collapse. Immediate medical attention has been required.

Convulsions
Post-marketing reports of convulsions have been observed in patients receiving GnRH agonists, including leuprorelin acetate therapy. These included patients in the female and paediatric populations, patients with a history of seizures, epilepsy, cerebrovascular disorders, central nervous system anomalies or tumours, and in patients on concomitant medications that have been associated with convulsions such as bupropion and SSRIs. Convulsions have also been reported in patients in the absence of any of the conditions mentioned above.

Depression and Mood Changes
Depression has been reported in adults who have used leuprorelin for other indications. In children, emotional lability and tearfulness have been reported (see Section 4.8 Undesirable effects).

Use in the Elderly
No data available

Paediatric Use
Safety and efficacy in paediatric patients below the age of 2 years have not been established. The use of Lucrin Depot Paediatric 30 mg in children under 2 years is not recommended.

Noncompliance with drug regimen or inadequate dosing may result in inadequate control of the pubertal process with gonadotropins and/or sex steroids increasing above prepubertal levels.

CPP is defined as early onset of secondary sexual characteristics (generally earlier than 8 years of age in girls and 9 years of age in boys) associated with pubertal pituitary gonadotropin activation. It may show a significantly advanced bone age that can result in diminished adult height.

Prior to initiation of treatment a clinical diagnosis of CPP should be confirmed by measurement of blood concentrations of luteinizing hormone (LH) (basal or stimulated with a GnRH analogue), sex steroids, and assessment of bone age versus chronological age. Baseline evaluations should include height and weight measurements, diagnostic imaging of the brain (to rule out intracranial tumour), pelvic/testicular/adrenal ultrasound (to rule out steroid secreting tumours), human chorionic gonadotropin levels (to rule out a chorionic gonadotropin secreting tumour), and adrenal steroid measurements to exclude congenital adrenal hyperplasia.

Bone Mineral Density
Bone mineral density (BMD) may decrease during GnRH therapy in children with central precocious puberty. However, after cessation of treatment subsequent bone mass accrual is preserved and peak bone mass in late adolescence does not seem to be affected by treatment.

Effect on Laboratory Tests
Response to Lucrin Depot Paediatric 30 mg should be monitored with a GnRH stimulation test, basal LH or serum concentration of sex steroid levels at months 2-3, month 6 and further as judged clinically appropriate, to ensure adequate suppression. Additionally, height (for calculation of growth rate) and bone age should be assessed every 6 to 12 months.

Once a therapeutic dose has been established, gonadotropin and sex steroid levels will decline to prepubertal levels.

4.5 Interactions with Other Medicines and Other Forms of Interactions
No pharmacokinetic-based drug-drug interaction studies have been conducted with Lucrin Depot Paediatric 30 mg. However, because leuprorelin acetate is a peptide that is primarily degraded by peptidase and the drug is only about 46% bound to plasma proteins, drug interactions would not be expected to occur.

4.6 Fertility, Pregnancy and Lactation

Effects on Fertility
Following subcutaneous administration of Lucrin Depot to male and female rats before mating there was atrophy of the reproductive organs and suppression of reproductive performance. Cessation of oestrous cycling was seen in female rats at 2.4 mg/kg/month and reduced fertility was seen in male rates at ≥ 0.8 mg/kg/month. A no effect dose level was not established. These effects were reversed after a long treatment-free period.

In a clinical study of the 1-month formulation, data to assess reproductive function was collected in a post-study survey of 20 girls who reached adulthood (ages 18-26): menstrual cycles were reported to be normal in 80% of women; 12 pregnancies were reported for a total of 7 of the 20 subjects, including multiple pregnancies for 4 subjects. There are no data in humans relating to male fertility following treatment with leuprorelin acetate.

Use in Pregnancy (Category D)
Lucrin Depot Paediatric 30 mg is contraindicated in patients who are or may become pregnant while receiving the drug (see Section 4.3 Contraindications).

Safe use of leuprorelin acetate in pregnancy has not been established in clinical studies. Before starting and during treatment with leuprorelin acetate, it is advisable to establish whether the patient is pregnant. Leuprorelin acetate is not a contraceptive. If contraception is required, a non-hormonal method of contraception should be used.
When Lucrin Depot Paediatric 30 mg was administered subcutaneously to groups of rabbits as one time dosing on day 6 of pregnancy at test dosages of 0.00024, 0.0024, and 0.024 mg/kg (1/1900 to 1/19 of the human paediatric dose) it produced a dose-related increase in major foetal abnormalities. Similar studies in rats failed to demonstrate an increase in foetal malformations. There was increased foetal mortality and decreased foetal weights with the two higher doses of Lucrin Depot Paediatric 30 mg in rabbits and with the highest dose in rats. No foetal malformations but increase in foetal resorptions and mortality were observed in rat and rabbit when the daily injection formulation of leuprorelin acetate was dosed subcutaneously once daily at lower doses (0.1-1 mcg/kg/day in rabbit; 10 mcg/kg/day in rat) during the period of organogenesis. The effects on foetal mortality are logical consequences of the alterations in hormonal levels brought about by this drug. Therefore, the possibility exists that spontaneous abortion may occur if the drug is administered during pregnancy.

Use in Lactation
Lucrin Depot Paediatric 30 mg should not be administered to a nursing mother, as it is not known whether leuprorelin acetate is excreted into human milk (see Section 4.3 Contraindications).

4.7 Effects on Ability to Drive and Use Machines

The effects of this medicine on a person's ability to drive and use machines were not assessed as part of its registration.

4.8 Adverse Effects (Undesirable effects)

Note: To provide a complete safety profile of leuprorelin acetate in the CPP population, adverse events for all doses studied in patients with CPP are outlined below. However, the only dosage for the treatment of CPP currently available in Australia is the 30 mg 3-month formulation.

The most common adverse reactions with GnRH agonists including Lucrin Depot Paediatric 30 mg for 3 month administration are injection site reactions/pain including abscess, general pain, headache, emotional lability and hot flushes/sweating.

During the early phase of therapy, gonadotropins and sex steroids rise above baseline because of the initial stimulatory effect of the drug (hormonal flare effect). Therefore, an increase in clinical signs and symptoms of puberty may be observed (see Section 4.4 Special Warnings and Precautions for use).

Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical studies of a drug cannot be directly compared to rates in the clinical studies of another drug and may not reflect the rates observed in practice.

Table 1: Percentage of Patients with Treatment-Emergent Adverse Reactions Occurring in ≥ 2 Paediatric Patients Receiving Lucrin Depot Paediatric 7.5mg, 11.25mg or 15mg for 1 Month Administration

	Number of Patients (N = 421)	
	N	%
Body as a Whole		
Injection Site Reactions Including Abscess*	37	(9)
General Pain	12	(3)
Headache	11	(3)
Cardiovascular System		
Vasodilation	9	(2)
Integumentary System (Skin and Appendages)		
Acne/Seborrhoea	13	(3)
Rash Including Erythema Multiforme	12	(3)
Nervous System		
Emotional Lability	19	(5)
Urogenital System		
Vaginitis/Vaginal Bleeding/Vaginal Discharge	13	(3)
* Most events were mild or moderate in severity.		

Less Common Adverse Reactions with 1-Month Formulations

The following treatment-emergent adverse reactions were reported in less than 2% of the patient and are listed below by body system:

Body as a Whole: Aggravation of pre-existing tumour and decreased vision, allergic reaction, body odour, fever, flu syndrome, hypertrophy, infection

Cardiovascular System: Bradycardia, hypertension, peripheral vascular disorder, syncope

Digestive System: Constipation, dyspepsia, dysphagia, gingivitis, increased appetite, nausea/vomiting

Endocrine System: Accelerated sexual maturity, feminisation, goitre

Hemic and Lymphatic System: Purpura

Metabolic and Nutritional Disorders: Growth retarded, peripheral oedema, weight gain

Musculoskeletal System: Arthralgia, Joint disorder, myalgia, myopathy

Nervous System: Depression, hyperkinesia, nervousness, somnolence

Respiratory System: Asthma, epistaxis, pharyngitis, rhinitis, sinusitis

Integumentary System (Skin and Appendages): Alopecia, hair disorder, hirsutism, leukoderma, nail disorder, skin hypertrophy

Urogenital System: Cervix disorder/neoplasm, dysmenorrhoea, gynecomastia/breast disorders, menstrual disorders, urinary incontinence

Laboratory: The following laboratory events were reported as adverse reactions: antinuclear antibody present and increased sedimentation rate.

Table 2: Percentage of Patients with Treatment-Emergent Adverse Reactions Occurring in ≥2 Paediatric Patients Receiving Lucrin Depot Paediatric 11.25mg or 30mg for 3 Month Administration

	11.25mg every 3 Months N=42		**30mg every 3 Months N=42**	
	N	%	N	%
Injection site pain	8	(19)	9	(21)
Weight increased	3	(7)	3	(7)
Headache	1	(2)	3	(7)
Mood altered	2	(5)	2	(5)
Injection site swelling	1	(2)	1	(2)

Less Common Adverse Reactions with 3-Month Formulations

The following treatment-emergent adverse reactions were reported in one patient and are listed below by system organ class:

Gastrointestinal Disorders – abdominal pain, nausea

General Disorders and Administration Site Conditions – asthenia, gait disturbance, injection site abscess sterile, injection site hematoma, injection site induration, injection site warmth, irritability

Metabolic and Nutritional Disorders – decreased appetite, obesity

Musculoskeletal and Connective Tissue Disorders - musculoskeletal pain, pain in extremity
Nervous System Disorders – crying, dizziness

Psychiatric Disorders – tearfulness

Respiratory, Thoracic and Mediastinal Disorders – cough

Skin and Subcutaneous Tissue Disorders – hyperhidrosis,

Vascular Disorders – pallor

Post-marketing
The following adverse events have been observed with this or other formulations of leuprorelin acetate injection. As leuprorelin has multiple indications, and therefore patient populations, some of these adverse events may not be applicable to every patient.

Allergic reactions (anaphylactic, rash, urticaria, and photosensitivity reactions) have also been reported.

Cardiac Disorders: arrhythmia, tachycardia, bradycardia

Ear and Labyrinth Disorders: tinnitus, hearing impaired

Endocrine Disorders: goitre, pituitary apoplexy

Eye Disorders: vision blurred, eye disorder, visual impairment, amblyopia, dry eye

Gastrointestinal Disorders: nausea, abdominal pain, vomiting, constipation, gastrointestinal haemorrhage, abdominal distention, diarrhoea, dysphagia, dry mouth, gastrointestinal disorder, peptic ulcer

General Disorders and Administration Site Conditions: pain, chest pain, oedema, asthenia, pyrexia, injection site inflammation, injection site pain, injection site reactions including induration and abscess have been reported, injection site haematoma, chills, nodule, thirst.

Infections and infestations: infection, urinary tract infection, pharyngitis, pneumonia

Injury, poisoning and procedural complications: spinal fracture

Investigations: decreased WBC, weight increased, blood urea increased, blood uric acid increased, blood creatinine increased, liver function test abnormal, white blood cell count increased, cardiac murmur.

Metabolism and Nutrition Disorders: diabetes mellitus, increased appetite, hypoglycaemia, dehydration, hyperlipidaemia, hyperphosphataemia, hypoproteinaemia

Musculoskeletal and Connective Tissue Disorders: tenosynovitis-like symptoms, myalgia, bone swelling, arthropathy, arthralgia

Neoplasms benign, malignant and unspecified (incl cysts and polyps): skin cancer

Nervous System Disorders: neuropathy peripheral, convulsion, spinal fracture/paralysis, dizziness, headache, paraesthesia, lethargy, memory impairment, dysgeusia, hypoaesthesia, syncope, cerebrovascular accident, loss of consciousness, neuromyopathy

Psychiatric Disorders: insomnia, mood swings, nervousness, libido increased, sleep disorder, depression, anxiety, delusion

Renal and urinary disorders: urinary incontinence, pollakiuria, micturition urgency, haematuria

Reproductive System and Breast Disorders: prostate pain, gynaecomastia, breast tenderness, testicular atrophy, vaginal haemorrhage, menstrual disorder, breast pain, metrorrhagia, testicular disorder

Respiratory, thoracic and mediastinal disorders: epistaxis, dyspnoea, cough, respiratory disorder, sinus congestion

Skin and Subcutaneous Tissue Disorders: hot flush, flushing, hyperhidrosis, alopecia, ecchymosis, rash, dry skin, urticaria, dermatitis, hair growth abnormal, pruritus, pigmentation disorder, skin lesion.

Vascular Disorders: hypertension, hypotension, lymphoedema, thrombosis,

Psychiatric Events

Psychiatric events have been reported in patients taking GnRH agonists. Post-marketing reports with this class of drugs include symptoms of emotional lability, such as crying, irritability, impatience, anger and aggression. A definitive cause and effect relationship between the treatment with GnRH agonists and the occurrence of these events has not been established. Monitor for development or worsening of psychiatric symptoms during treatment with leuprorelin acetate.

See other Lucrin Depot and Lucrin Injection package inserts for other events reported in different patient populations.

Reporting suspected adverse reactions after registration of the medicinal product is important. It allows continued monitoring of the benefit-risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions at http://www.tga.gov.au/reporting-problems.

4.9 Overdose

In early clinical trials with daily subcutaneous leuprorelin acetate in patients with prostate cancer, doses as high as 20 mg/day for up to two years caused no adverse effects differing from those observed with the 1 mg/day dose.

In rats, subcutaneous administration of leuprorelin acetate as a single dose 225 times the recommended human paediatric dose, expressed on a per body weight basis, resulted in dyspnoea, decreased activity, and local irritation at the injection site. There is no evidence at present that there is a clinical counterpart of this phenomenon.

In cases of overdosage, standard of care monitoring and management principles should be followed. For advice on the management of overdose please contact the Poisons Information Centre, phone 131126.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Mechanism of action

Leuprorelin acetate is a synthetic nonapeptide analogue of naturally occurring gonadotropin releasing hormone (GnRH or LH-RH). The analogue possesses greater potency than the natural hormone. Leuprorelin acetate acts as an inhibitor of gonadotropin production and is chemically unrelated to the steroids. The chemical name is 5-oxo-L-prolyl-L-histidyl-L-tryptophyl-L-seryl-L-tyrosyl-D-leucyl-L-leucyl-L-arginyl-N-ethyl-L-prolinamide acetate (salt).

Leuprorelin acetate acts as a potent inhibitor of gonadotropin secretion when given continuously and in therapeutic doses. Animal and human studies indicate that following an initial stimulation, chronic administration of leuprorelin acetate results in suppression of ovarian and testicular steroidogenesis**.**

Administration of leuprorelin acetate has resulted in inhibition of the growth of certain hormone-dependent tumours (prostatic tumours in noble and dunning male rats and DMBA-induced mammary tumours in female rats) as well as atrophy of the reproductive organs.

In humans, administration of leuprorelin acetate results in an initial increase in circulating levels of luteinizing hormone (LH) and follicle stimulating hormone (FSH), leading to a transient increase in levels of the gonadal steroids (testosterone and dihydrotestosterone in males and oestrone and oestradiol in pre-menopausal females). However, continuous administration of leuprorelin acetate results in decreased levels of LH and FSH. In males, androgens are reduced to castrate or pre-pubertal levels. In pre-menopausal females, oestrogens are reduced to post-menopausal levels. These decreases occur within a month of initiating treatment and are maintained as long as treatment continues.

Leuprorelin acetate is not active when given orally.

Clinical trials

In children with central precocious puberty (CPP), stimulated and basal gonadotropins are reduced to prepubertal levels. Testosterone and oestradiol are reduced to prepubertal levels in males and females respectively.

Lucrin Depot Paediatric 11.25 mg or 30 mg For 3-Month Administration

In a randomised, open-label clinical study (L-CP07-167) of Lucrin Depot Paediatric 3 month formulations, 84 subjects (76 female, 8 male), with a mean age of 7.8 years (range 1 to 11 years), received the 11.25 mg and 30 mg formulation as a single intramuscular injection every 3 months. Each dose group had an equal number of treatment-naïve patients who had pubertal LH levels and patients previously treated with GnRH therapies who had prepubertal LH levels at the time of study entry. The percentage of subjects with suppression of peak-stimulated LH to < 4.0 mIU/mL, as determined by assessments at months 2, 3 and 6, was 78.6% in the 11.25 mg dose group and 95.2% as shown in Table 3.

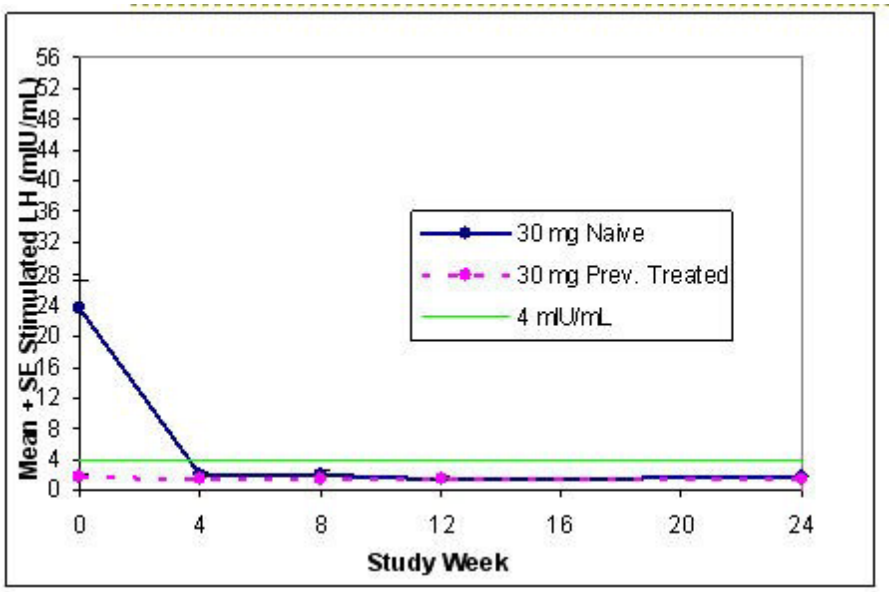
Table 3: Suppression of Peak-Stimulated LH from Month 2 through Month 6

	Lucrin Depot Paediatric 30mg every 3 Months		
Parameter	Naïve	Previously	Total

	N = 21	Treated [a] N = 21	N = 42
Percent with Suppression	90.5	100	95.2
2-sided 95% CI	69.6, 98.8	83.9, 100	83.8, 99.4
a. Previously treated with GnRHa for at least 6 months prior to enrolment in pivotal Study L-CP07-167			

The mean peak stimulated LH levels for all visits are shown by dose and subgroup (naïve vs. previously treated subjects) in Figure 1.

Figure 1: Mean Peak Stimulated LH for Lucrin Depot Paediatric 3 Month 30 mg Paediatric



5.2 Pharmacokinetic Properties

Absorption
Following a single Lucrin Depot Paediatric 30 mg for 3-month administration to children with CPP, the mean peak leuprorelin plasma concentration was 52.5 ng/mL. The concentrations then declined to 0.25 ng/mL at 2 weeks after dosing. Mean leuprorelin plasma concentration remained constant from month 1 to month 3. The mean leuprorelin concentrations 3 months after the first and second injections were similar indicating no accumulation of leuprorelin from repeated administration.

Distribution
The mean steady-state volume of distribution of leuprorelin following intravenous bolus administration to healthy male volunteers was 27 L. *In vitro* binding to human plasma proteins ranged from 43% to 49%.

Metabolism
In healthy male volunteers, a 1 mg bolus of leuprorelin administered intravenously, revealed that the mean systemic clearance was 7.6 L/h, with a terminal elimination half-life of approximately three hours based on a two compartment model.

Animal studies have shown ^{14}C-labelled leuprorelin was metabolised into smaller peptides, a pentapeptide (Metabolite I), tripeptides (Metabolites II and III) and a dipeptide (Metabolite IV). These fragments may be further metabolised.

Excretion
No data available.

Special Populations
The pharmacokinetics of Lucrin Depot Paediatric 30 mg in hepatic-and renal-impaired patients has not been determined.

5.3 Preclinical Safety Data

Genotoxicity
Genotoxicity studies have been performed with leuprorelin acetate using bacterial and mammalian systems. These studies provided no evidence of a genotoxic potential.

Carcinogenicity
A two-year carcinogenicity study was conducted in rats and mice. In rats, a dose-related increase of benign pituitary hyperplasia and benign pituitary adenomas was noted at 24 months when the drug was administered subcutaneously at high daily doses (0.6 to 4 mg/kg). In mice, no pituitary abnormalities were observed at a dose as high as 60 mg/kg for two years and no pituitary nor pancreatic changes were found in cynomolgus monkeys treated for 12 months with 10 mg/kg daily.

6. PHARMACEUTICAL PARTICULARS

6.1 List of Excipients

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection contains leuprorelin acetate (30 mg), polylactic acid (264.8 mg) and mannitol (51.9 mg). The accompanying diluent contains carmellose sodium (7.5 mg), mannitol (75 mg), polysorbate 80 (1.5 mg), water for injections USP (1.5 mL) and glacial acetic acid USP (0-0.075 mg) to control pH.

6.2 Incompatibilities

Incompatibilities were either not assessed or not identified as part of the registration of this medicine.

6.3 Shelf life

3 years

6.4 Special Precautions for Storage

Store below 25^{o}C. Protect from light.

6.5 Nature and Contents of Container

Lucrin Depot Paediatric 30 mg 3-Month PDS Injection is available as sterile lyophilised microspheres, which, when mixed with diluent, becomes a suspension, for administration as a single intramuscular injection every three months.

30 mg 3-monthly PDS injection: Clear, colourless type I glass cartridge with rubber stopper. Front chamber with 30 mg powder for solution for injection, rear chamber containing 1.5mL diluent.

6.6 Special Precautions for Disposal

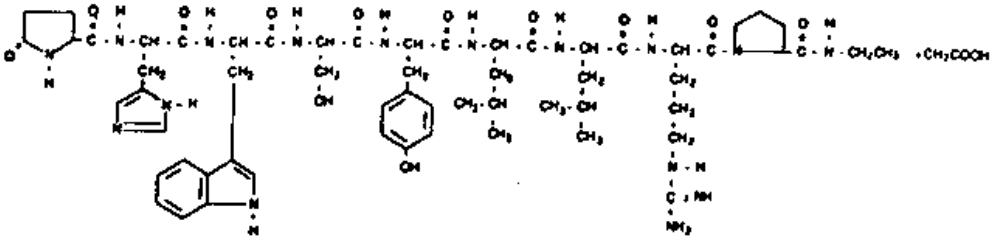
Although the solution has been shown to be stable for 24 hours following reconstitution, the suspension should be discarded if not used immediately, as the product does not contain a preservative.

Product contains no antimicrobial agent. Product is for single use in one patient only. Discard any residue.

6.7 Physicochemical Properties

Leuprorelin acetate is a hygroscopic, white or almost white powder. It has a molecular formula of $C_{59}H_{84}N_{16}O_{12}.C_2H_4O_2$ and a molecular weight of 1269.47. The solubility of leuprorelin acetate in water is more than 75% and less than 0.0001% in ether and hexane.

Chemical Structure



CAS Number

74381-53-6

7. MEDICINE SCHEDULE (POISONS STANDARD)

Schedule 4

8. SPONSOR

AbbVie Pty Ltd
241 O'Riordan Street
Mascot NSW 2020
Australia

9. DATE OF FIRST APPROVAL

13 October 2014

10. DATE OF REVISION

21 December 2019

Version 04

Summary table of changes

Section changed	Summary of new information
4.4	Additional precautionary information relating to decrease in bone mineral density.