



SHARED CARE GUIDELINE

Drug: Goserelin (Zoladex) 3.6mg Implant

Introduction

Goserelin 3.6mg implant (Zoladex) Indications For Shared Care:

1) Treatment of prostate cancer in the following settings:

- In the treatment of metastatic prostate cancer
- In the treatment of locally advanced prostate cancer, as an alternative to surgical castration
- As adjuvant treatment to radiotherapy in patients with high-risk localised or locally advanced prostate cancer
- As neo-adjuvant treatment prior to radiotherapy in patients with high-risk localised or locally advanced prostate cancer
- As adjuvant treatment to radical prostatectomy in patients with locally advanced prostate cancer at high risk of disease progression

2) Treatment of breast cancer in the following settings:

- Advanced breast cancer in pre and perimenopausal women suitable for hormonal manipulation.
- As an alternative to chemotherapy in the standard of care for pre/perimenopausal women with oestrogen receptor (ER) positive early breast cancer.

3) Gynaecological settings:

- Endometriosis: In the management of endometriosis
- Endometrial thinning: Zoladex is indicated for the prethinning of the uterine endometrium prior to endometrial ablation or resection.
- Uterine fibroids: In conjunction with iron therapy in the haematological improvement of anaemic patients with fibroids prior to surgery.

N.B. Please see the SPC for detailed information on licensed indications

Please note:

The best interest, agreement and preferences of the patient should be at the centre of any shared care agreement and their wishes followed wherever possible. Patients should be able to decline shared care if, after due consideration of the options, they decide it is not in their best interests.

The provision of shared care prescribing guidelines does not necessarily mean that the GP must agree to and accept clinical and legal responsibility for prescribing; they should only do so if they feel clinically confident in managing that condition.

Referral to the GP should only take place once the GP has agreed to this in each individual case, and the hospital or specialist will continue to provide prescriptions until a successful transfer of responsibilities has occurred. The GP should confirm the agreement and acceptance of the shared care prescribing arrangement and that supply arrangements have been finalised. The secondary/tertiary provider must supply an adequate amount of the



	<p>medication to cover the transition period for the treatment of breast cancer and use in gynaecological settings. The patient should then be informed to obtain further prescriptions from the GP.</p> <p>For those patients commencing treatment for metastatic prostatic cancer, the first month of oral anti-androgen therapy will be prescribed by specialist with the first prescription and subsequent prescriptions for goserelin implant to commence and continue by GP unless the GP has declined this.</p> <p>Background:</p> <p>Goserelin (Zoladex) is a synthetic analogue of naturally occurring Luteinizing Hormone Releasing Hormone (LHRH). On chronic administration Zoladex results in inhibition of pituitary LH secretion leading to a fall in serum testosterone concentrations in males and serum estradiol concentrations in females. This effect is reversible on discontinuation of therapy. Initially, Zoladex, like other LHRH agonists, may transiently increase serum testosterone concentration in men and serum estradiol concentration in women.</p> <p>In men, by around 21 days after the first depot injection, testosterone concentrations have fallen to within the castrate range and remain suppressed with continuous treatment every 28 days.</p> <p>In women, serum estradiol concentrations are suppressed by around 21 days after the first depot injection and, with continuous treatment every 28 days, remain suppressed at levels comparable with those observed in postmenopausal women.</p>
Form	3.6 mg Implant in a Single dose Safe System™ syringe applicator with a protective sleeve
Dose and administration (please refer to BNF / SPCs for full details)	<p>One 3.6 mg depot of Zoladex injected subcutaneously into the anterior abdominal wall, every 28 days. No dosage adjustment is necessary for patients with renal or hepatic impairment, or in the elderly. Care should be taken to ensure injection is only given subcutaneously.</p> <p>Treatment course:</p> <p>Prostate cancer – ongoing under clinical supervision</p> <p>Breast cancer – ongoing under clinical supervision</p> <p>Endometriosis should be treated for a period of six months only</p> <p>Endometrial thinning: four or eight weeks treatment, (the second depot may be required for the patient with a large uterus or to allow flexible surgical timing).</p> <p>Anaemia as a result of uterine fibroids: Zoladex 3.6 mg depot with supplementary iron may be administered for up to three months before surgery.</p>
Common Adverse Effects (please refer to BNF / SPCs for full details)	<p>Please refer to the SPC or BNF for full list.</p> <p>Males:</p> <p>Very Common: Libido decreased, hot flush, hyperhidrosis, erectile dysfunction,.</p> <p>Common: Glucose tolerance impaired, mood changes, depression, paraesthesia, spinal cord compression, cardiac failure, myocardial infarction, blood pressure abnormalities, rash, bone pain, gynaecomastia, injection site reaction, bone density decreased, weight increased.</p> <p>Uncommon: Drug hypersensitivity, arthralgia, ureteric obstruction, breast tenderness.</p> <p>Rare: Anaphylactic reaction.</p> <p>Very Rare: Pituitary tumour, pituitary haemorrhage, psychotic disorder.</p> <p>Not known: QT prolongation, alopecia.</p>

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References: Astra Zeneca UK Ltd Zoladex® SmPC lasted updated 07.02.2017



	<p><u>Females:</u></p> <p>Very Common: Libido decreased, hot flush, hyperhidrosis, acne, vulvovaginal dryness, breast enlargement, injection site reaction.</p> <p>Common: Mood changes, depression, paraesthesia, headache, blood pressure abnormalities, rash, alopecia, arthralgia, tumour flare, tumour pain (on initiation of treatment), bone density decreased, weight increased.</p> <p>Uncommon: Drug hypersensitivity, hypercalcaemia.</p> <p>Rare: Anaphylatic reaction, ovarian cyst, ovarian hyperstimulation syndrome (if used concomitantly with gonadotrophins).</p> <p>Very Rare: Pituitary tumour, pituitary haemorrhage, psychotic disorder.</p> <p>Not known: Degeneration of uterine fibroid, QT prolongation, withdrawal bleeding.</p>
<p>Contraindications / Cautions (please refer to BNF / SPCs for full details)</p>	<p>Contraindications:</p> <ul style="list-style-type: none">• Hypersensitivity to the active substance or any of the excipients listed in section 6.1 of the SPC• Zoladex should not be used during pregnancy since concurrent use of LHRH agonists is associated with a theoretical risk of abortion or foetal abnormality.• The use of Zoladex during breast-feeding is not recommended. <p>Cautions:</p> <ul style="list-style-type: none">• There is an increased risk of incident depression (which may be severe) in patients undergoing treatment with GnRH agonists.• Androgen deprivation therapy may prolong the QT interval. In patients with a history of or risk factors for QT prolongation and in patients receiving concomitant medicinal products that might prolong the QT interval physicians should assess the benefit risk ratio including the potential for Torsade de pointes prior to initiating Zoladex.• The use of LHRH agonists may cause reduction in bone mineral density. Particular caution is necessary in patients with additional risk factors for osteoporosis.• Injection site injury has been reported with Zoladex, including events of pain, haematoma, haemorrhage and vascular injury. Monitor affected patients for signs or symptoms of abdominal haemorrhage. In very rare cases, administration error resulted in vascular injury and haemorrhagic shock requiring blood transfusions and surgical intervention. Extra care should be taken when administering Zoladex to patients with a low BMI and/or receiving full anticoagulation medications. <p>Males Only:</p> <ul style="list-style-type: none">• The use of Zoladex in men at particular risk of developing ureteric obstruction or spinal cord compression should be considered carefully, and the patients monitored closely during the first month of therapy.• Reduction in glucose tolerance has been observed in men receiving LHRH agonists. This may manifest as diabetes or loss of glycaemic control in patients with pre-existing diabetes mellitus.• Myocardial infarction and cardiac failure were observed in a pharmaco-epidemiology study of LHRH agonists used in the treatment of prostate cancer. The risk appears to be increased when used in combination with anti-androgens. <p>Females Only:</p> <ul style="list-style-type: none">• The use of Zoladex may cause an increase in cervical resistance and care should be taken when dilating the cervix.



	<ul style="list-style-type: none">• As with other LHRH agonists, there have been reports of ovarian hyperstimulation syndrome (OHSS), associated with the use of Zoladex 3.6 mg in combination with gonadotrophin.• Fertile women should use non-hormonal contraceptive methods during treatment with Zoladex and until reset of menstruation following discontinuation of treatment with Zoladex.
Potentially Serious Drug Interactions (please refer to BNF / SPCs for full details)	Since androgen deprivation treatment may prolong the QT interval, the concomitant use of Zoladex with medicinal products known to prolong the QT interval or medicinal products able to induce Torsade de pointes such as class IA (e.g. quinidine, disopyramide) or class III (e.g. amiodarone, sotalol, dofetilide, ibutilide) antiarrhythmic medicinal products, methadone, moxifloxacin, antipsychotics, etc. should be carefully evaluated.
Secondary Care Responsibilities	<ol style="list-style-type: none">1) Record the person's preferences and concerns in their treatment plan. Patients should be able to decline shared care if, after due consideration of the options, they decide it is not in their best interests. Patients should provide explicit consent and this should be recorded in both the patients notes and on the shared care agreement form.2) Provide information about the medication to patients, including common side effects, necessary monitoring, and where that monitoring will take place. Also, to keep the patient informed of the process at all stages to ensure continuity of treatment.3) For the treatment of breast cancer and use in gynaecological settings, titrate the dose against symptoms and adverse effects until dose optimisation is achieved, that is, reduced symptoms etc.4) Continue all necessary physical health monitoring during the titration period and to monitor effectiveness of medication for and adverse effects, and document in the person's notes.5) For the treatment of breast cancer and use in gynaecological settings, prescribe and monitor the patient for a minimum period of one month.6) For the treatment of breast cancer and use in gynaecological settings, continue to provide prescriptions until a successful transfer of responsibilities to the GP has occurred. The secondary/tertiary provider must supply an adequate amount of the medication to cover the transition period.7) The patient should then be informed to obtain further prescriptions from the GP after the transition period and must be made fully aware of all necessary monitoring requirements.8) Conduct an annual face to face medication review for all patients covered by this shared care guidance.9) Contact the GP within 3 days of a patient missing a specialist face to face appointment to advise whether treatment should be withheld10) Accept referrals back from primary care for medication discontinuation.11) Resume prescribing and monitoring of the patient when a decision for managed withdrawal of treatment has been taken.12) Continue to provide emergency appointments where patients are receiving prescriptions from their GP and they feel that a prompt assessment or review of their treatment is required.13) Provide prompt on-going advice to General Practitioners as required without necessarily requiring a new referral.14) Provide advice to the GP as to the changes in parameters that should trigger urgent referral back to the specialist



	<p>15) Telephone details and (if appropriate) secure email addresses for both Secondary and Primary Care should be exchanged and recorded. This should include out-of-hours contact numbers. Patients and their carers should also be provided with contact details for support and help if required; both in and out of hours.</p> <p>16) Ensure that adequate training and educational support is in place for the primary care multidisciplinary team (in collaboration with the local commissioner of the service pathway i.e. CCG)</p>
Primary Care Responsibilities	<p>Clinical responsibility for prescribing is held by the person signing the prescription, who must also ensure adequate monitoring.</p> <p>1) To consider requests to prescribe under shared care arrangements and reply in a timely manner</p> <p>2) To provide the prescription for the first dose for the treatment of prostate cancer, and continuation prescriptions for the treatment of breast cancer and use in gynaecological conditions, or identify any concerns about the request to the prescriber in the specialist team. It is expected that primary care prescribers will not make changes to the dose/formulation, unless it is in consultation with the specialist team.</p> <p>3) To monitor the patient in accordance with Appendix A and contact the specialist team if results give rise to concern. Any ongoing monitoring requirements for individual patients discharged from secondary care will be identified by the specialist service as part of the discharge information to the GP.</p> <p>4) To contact specialists within the team where concerns arise about a patient's presentation or when advice is needed.</p> <p>5) To refer back to secondary care if withdrawal of treatment might be indicated.</p> <p>Circumstances for discontinuation of treatment in Primary Care</p> <p>1) As a joint decision with specialist team providing specific advice in case of adverse effect pending assessment.</p> <p>2) Following non-attendance at annual specialist team review pending that review taking place or if there is failure to engage with the review process.</p>

Bibliography

Summary of Product Characteristics. Zoladex (goserelin) 3.6mg. AstraZeneca UK Limited.
Last updated: 07/02/2017. [Accessed online: 19/07/2018] Accessed via:
<https://www.medicines.org.uk/emc/product/1543/smpe>



APPENDIX A

Suggested Monitoring	Frequency
Blood pressure	3 Monthly
Blood glucose levels in men	3 Monthly
Bone mineral density	If clinically indicated
ECG (QT interval)	If clinically indicated
Depression	If clinically indicated