BCCA Protocol Summary for Therapy for Prostate Cancer Using LHRH Agonist (Goserelin, Leuprolide or Buserelin)

**Protocol Code**: GUPLHRH

**Tumour Group**: Genitourinary

**Contact Physician**
- Dr. T. Pickles, VCC (604) 877-6000 loc 2752
- Dr. H. Martins VICC (250) 370-8476
- Dr. S. Ellard CCSI (250) 712-3900

**ELIGIBILITY:**
- Locally advanced* or metastatic prostate adenocarcinoma in patients who decline orchiectomy
- Locally advanced* prostate adenocarcinoma in combination with radiation therapy or brachytherapy
- * Local disease with high risk features (see Cancer Management Guidelines)

**Mechanism of Action**
LHRH agonists are synthetic analogs of gonadotropin-releasing hormone and act mainly on the pituitary gland in humans. Continuous treatment produces initial stimulation (3-4 days) then suppression of hormones to castrate levels. In males, the reduction of testosterone to castrate levels occurs within 2-4 weeks.

**TREATMENT OPTIONS:**

<table>
<thead>
<tr>
<th>Goserelin Acetate</th>
<th>3.6 mg SC every month or 10.8 mg SC every 3 months</th>
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<tbody>
<tr>
<td>Leuprolide Acetate</td>
<td>7.5 mg IM every month, or 22.5 mg IM every 3 months, or 30 mg IM every 4 months, or</td>
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<td><em>(LUPRON®)</em></td>
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<tr>
<td><em>(ELIGARD®)</em></td>
<td>22.5 SC every 3 months, or 45 mg SC every 6 months</td>
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<tr>
<td>Buserelin Acetate</td>
<td>6.3 mg SC every 2 months, or 9.45 mg SC every 3 months</td>
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*Warning: The information contained in these documents are a statement of consensus of BC Cancer Agency professionals regarding their views of currently accepted approaches to treatment. Any clinician seeking to apply or consult these documents is expected to use independent medical judgement in the context of individual clinical circumstances to determine any patient's care or treatment. Use of these documents is at your own risk and is subject to BC Cancer Agency's terms of use available at www.bccancer.bc.ca/legal.htm*
Duration: Depends on the indication for medical orchiectomy.

**SPECIAL PRECAUTIONS:**

In order to cover for the disease flare during the first few days when the testosterone level may be elevated, patients should receive a non-steroidal or steroidal anti-androgen for one month.

**SIDE EFFECTS:**

Hot flushing, impotence, gynecomastia, erythema and irritation of the injection site. Muscle weakness and weight gain. Adverse CNS effects occur in 3% or more patients, including dizziness, pain, headache and paresthesias. Mood changes. Prolonged suppression of testosterone may occur in the elderly (over 75 years) and with the longer lasting preparations. Long-term use accelerates osteoporosis.

Call Dr. Tom Pickles or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

Date activated: N/A

Date revised: 1 Nov 2014 (leuprolide brand names added)