Regimen Monograph

A - Regimen Name

LPRL Regimen

Leuprolide

Disease Site	Genitourinary - Prostate
Intent	Neoadjuvant Adjuvant Palliative
Regimen Category	**Evidence-Informed :** Regimen is considered appropriate as part of the standard care of patients; meaningfully improves outcomes (survival, quality of life), tolerability or costs compared to alternatives (recommended by the Disease Site Team and national consensus body e.g. pan-Canadian Oncology Drug Review, pCODR). Recommendation is based on an appropriately conducted phase III clinical trial relevant to the Canadian context OR (where phase III trials are not feasible) an appropriately sized phase II trial. Regimens where one or more drugs are not approved by Health Canada for any indication will be identified under Rationale and Use.
Rationale and Uses	• for cytoreduction before brachytherapy • in combination with radiotherapy for the treatment of high-risk localized prostate cancer • for palliative treatment of recurrent, progressive or metastatic prostate cancer
Supplementary Public Funding	**leuprolide** ODB - General Benefit (leuprolide - long-acting formulation)

back to top

B - Drug Regimen

leuprolide

Various dosage forms and dose schedules available.

(Continued on next page)

Leuprolide*

7.5 mg EVERY MONTH

or

22.5mg EVERY 3 MONTHS

or

30mg EVERY 4 MONTHS

or

45mg EVERY 6 MONTHS

(Outpatient prescription in fixed-dose injection kits of 7.5mg, 22.5mg, 30mg and 45mg depots)

*Route of administration depends on the product brand and formulation. Refer to Leuprolide drug monograph.

back to top

C - Cycle Frequency

EVERY 1, 3, 4 OR 6 MONTHS depending on formulation

- Neoadjuvant - Generally up to 6 months in duration
- Adjuvant - Generally up to 3 years
- Palliative - for non-metastatic disease (for example: rising PSA after radiation), use an intermittent schedule. Otherwise use continuously.

back to top

D - Premedication and Supportive Measures

Antiemetic Regimen: Not applicable

back to top

E - Dose Modifications

Dosage with toxicity

Toxicity	Dose modification
Myelosuppression	No dose reduction needed
↑ LFTs	Hold until ≤ grade 1. If no recovery then discontinue
Arterial and venous thromboembolism	Discontinue
Pituitary apoplexy	Discontinue
Pneumonitis	Discontinue

Hepatic Impairment

No adjustment required. See table above for management of drug-related hepatotoxicity.

Renal Impairment

No adjustment required.

back to top

F - Adverse Effects

Refer to leuprolide drug monograph(s) for additional details of adverse effects

Most Common Side Effects	Less Common Side Effects, but may be Severe or Life Threatening
• Androgen deprivation symptoms (impotence, decreased libido, hot flashes) • Fatigue, headache • Edema • Disease flare (may be severe) • Musculoskeletal pain	• Arrhythmia • Osteopenia/osteoporosis • Cardiotoxicity • Arterial thromboembolism • Venous thromboembolism • Pneumonitis • Pituitary apoplexy

• Rash • Injection site reactions	• Seizures • Hypersensitivity • QT prolongation • GI hemorrhage and obstruction • Depression (may be severe) • Hepatotoxicity

back to top

G - Interactions

Refer to leuprolide drug monograph(s) for additional details

back to top

H - Drug Administration and Special Precautions

Refer to leuprolide drug monograph(s) for additional details

Administration:

- Outpatient prescription; administer in Cancer Centre or physician's office
- Vary injection site
- For long-acting preparations, reconstitute with supplied diluent immediately before injection as directed (see product monograph).
- Do not give multiple monthly injections together to make up a q3 or q4 month dose, as the release characteristics are different

Lupron Depot® 7.5mg, 22.5mg and 30mg:

- For Intramuscular use only.
- Usual sites of injection include the anterior thigh, gluteal area or deltoid. Vary injection sites.
- Store at room temperature.

Eligard® 7.5mg, 22.5mg, 30mg, and 45mg:

- For Subcutaneous use only. Choose an injection site on the abdomen, upper buttocks, or anywhere with adequate amounts of subcutaneous tissue.
- Keep refrigerated, or may be stored at room temperature in original packaging for a period of 8 weeks before administration.
- Allow product to reach room temperature before using.

Warnings/precautions:

- contraindicated in patients with hypersensitivity to the drug, its components or similar nonapeptides
- Lupron® contains benzyl alcohol and may cause local reactions.
- Use with caution in patients with osteoporosis (or risk factors for osteoporosis), diabetes, risk factors for QT prolongation, history of depression, cardiovascular disease, metastatic vertebral lesions and/or urinary tract obstruction due to the risk of disease flare, and in patients at risk of convulsions.

back to top

I - Recommended Clinical Monitoring

Treating physicians may decide to monitor more or less frequently for individual patients but should always consider recommendations from the product monograph.

Recommended Clinical Monitoring

- Blood glucose levels/HbA1c; baseline and periodic, especially in diabetic patients
- EKG, Electrolytes, (including K, Ca, Mg); baseline, also regular for at risk patients
- Liver function tests; periodic
- PSA; baseline and periodic
- Clinical assessment of disease flare, local reactions, thromboembolism, cardiovascular effects, osteoporosis, psychiatric effects, hot flashes and injection site reactions; at each visit

- Grade toxicity using the current NCI-CTCAE (Common Terminology Criteria for Adverse Events) version

Suggested Clinical Monitoring

- Renal function tests; periodic

back to top

J - Administrative Information

Outpatient prescription; drug administration at Cancer Centre or physician's office

back to top

K - References

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Heyns CF, Simonin MP, Grosgurin P, et al. Comparative efficacy of triptorelin pamoate and leuprolide acetate in men with advanced prostate cancer. BJU Int 2003;92(3):226-31.

Mottet N, Bellmunt J, Bolla M, et al. EAU guidelines on prostate cancer. Part II: Treatment of advanced, relapsing, and castration resistant prostate cancer. European Urology 2011:59;572-83.

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June 2017 Modified drug administration and special precautions section

back to top

M - Disclaimer

Refer to the New Drug Funding Program or Ontario Public Drug Programs websites for the most up-to-date public

funding information.

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back to top