TAKING CARE OF PATIENTS WITH PCA: A FOCUS ON THE TIMELINESS OF ADT

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EPIDEMIOLOGY

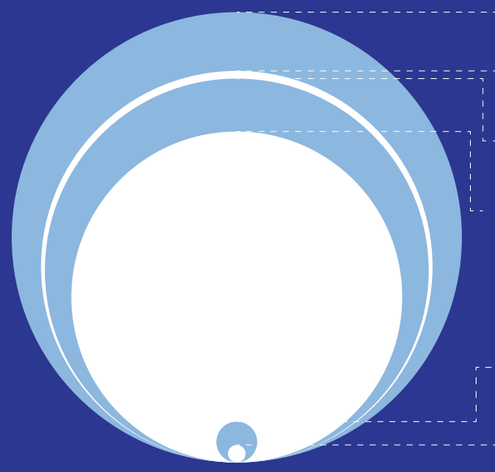
PCa is the 2nd **most commonly diagnosed cancer in males**[1]

In 2020[2]

335,514 new cases

69,945 deaths

Geographic epidemiology of PCa incidence (ASR per 100,000)[1]



GUIDANCE ON THE USE OF ANDROGEN DEPRIVATION THERAPY

ADT is the current standard of care for advanced PCa[1]

LHRH agonists and antagonists are used to suppress serum T levels to those seen following surgical castration[1]

Dosage available at 1-, 3-, and 6-month delivery intervals via subcutaneous or intramuscular injection[1]

Current EAU guidelines state a **castration T level as <50 ng/dL**, but a more appropriate level should be defined as <20 ng/dL (1 nmol/L) as current testing shows a level of **15 ng/dL** in surgically castrated patients[1]

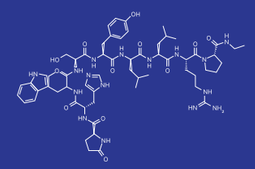
Better results shown from maintaining lower T levels **(<20 ng/dL)**[1]

Approximately **13–38%** of patients treated with an LHRH analogue fail to achieve T levels <20 ng/dL[1]

Advantages to treatment maintaining T levels at <20 ng/dL

- **Improved** biochemical relapse-free survival[3]
- **Extends** tumour-specific survival rates[4]
- **Prolonged** time to progression in metastatic disease[5]
- **Improvement** in duration of response and time to CRPC[7]
- **Lower** rate of biochemical recurrence[6]

DRUG POSITIONING OF LEUPRORELIN ACETATE AS A SOLUTION FOR PCa



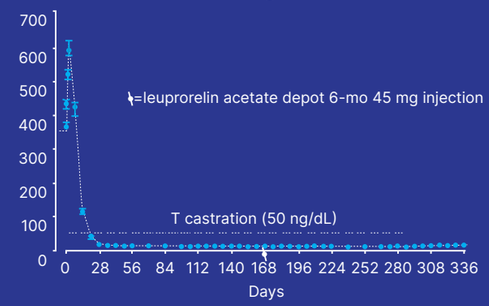
Introduced for medical use in 1985, **leuprorelin acetate** was the **first LHRH agonist** synthesised and used for PCa treatment for >30 years[8]

Successful in **delaying tumour progression** and alleviating symptoms e.g., bone pain[8]

88%

Leuprorelin acetate depot **suppresses T to <20 ng/dL in 88% of patients** (n=111) (EAU Guideline revised recommendation)[1,9]

Graph presenting the mean serum T ±SE during treatment:[9]



Average T level (±SE)=12.3 (±2.1) ng/dL at 12 months[9]

Maintained through ongoing treatment

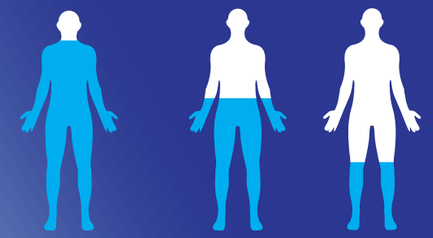
- Hot flashes
- Injection site burning
- Gynecomastia

Adverse effects noted were known physiological changes **as a result of testosterone suppression**[9]

IMPORTANCE OF DOSING TIMELINES

Retrospective analysis of records of patients with PCa in USA (n=22,860)[4]

Late Dosing Prevalence (over a 28-day month period)[4]



Overall **84%** ADT injections late

60% >1 week late

29% >2 weeks late

Late Dosing Prevalence (over the 'extended' month period)[4]

Overall **27%** ADT injections late

13% >1 week late

9% >2 weeks late

Impact[4]

4% of **early/on-time** ADT injections associated with T >50 ng/dL

15% of **late** 28-day month and **27%** **late** extended month ADT injections associated with T >50 ng/dL

Impact on the goal of reducing T <20 ng/dL (on-time dosing vs. late dosing)[4]

28-day month

22% vs **31%**

associated with T >20 ng/dL

28-day month

21% vs **43%**

associated with T >20 ng/dL

Key effects on treatment outcomes[4]

Failure in maintaining T <20 ng/dL may lead to treatment failure → decreased survival → increased costs for further healthcare

Increased potential for restoration of hypothalamic pituitary–gonadal axis function with rise in T

Increased likelihood of acute-on-chronic T surges with further doses

Abbreviations

ADT: androgen deprivation therapy; ASR: age-standardised rates; CRPC: castration-resistant prostate cancer; EAU: European Association of Urology;GnRH: gonadotropin-releasing hormone; LHRH: lutenising hormone-releasing hormone; PCa: prostate cancer; SE: standard error; T: testosterone.

References

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