

Medication adherence among patients with prostate cancer prescribed luteinizing hormone-releasing hormone agonists in England: Primary results from a real-world, retrospective cohort study

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Introduction & Objectives: Long-acting injectable luteinizing hormone-releasing hormone (LHRH) agonists, administered in 1-monthly (1M), 3-monthly (3M) and 6-monthly (6M) formulations, are a commonly used treatment for advanced prostate cancer (PC). There are concerns around non-adherence and treatment delays in clinical practice. This study assessed LHRH agonist coverage in patients with PC in England. Primary objectives were to describe patient adherence to LHRH agonist injections, and the number of delayed injections, for 1M, 3M and 6M formulations.

Materials & Methods: Clinical Practice Research Datalink data from 1 Apr 2007–31 Mar 2020 were linked with Hospital Episode Statistics and Office for National Statistics data. Eligible patients were males with PC aged >40 years, whose first prescription of LHRH agonist was between 1 Jan 2007–31 Dec 2019. Adherence was assessed using the proportion of days covered (PDC) for the 1M, 3M and 6M groups. Delayed injections were those occurring after the last intended day of coverage.

Results: Overall, 32,777 patients were included: 1M, n=10,365; 3M, n=21,910; 6M, n=502. Mean PDC was similar across groups (Table). For the 6M group, 84.7% of patients had a PDC \geq 85.0%, versus 76.2% (1M) and 80.3% (3M). The proportion of patients who received \geq 1 injection that was not delayed was lowest for the 6M group, and was similar between the 1M and 3M groups (Table).

Conclusions: Most patients prescribed LHRH agonists for PC received a 3M formulation. PDC was similar across groups; delayed injections were more frequent in the 6M group. Conclusions are limited by: small patient numbers in the 6M group; incomplete patient records from primary care; potential differences in recall systems for the prescription request window and communication between primary and secondary care.

Table: PDC and patients with delayed injections by LHRH agonist formulation

	Total N=32,777	LHRH agonist formulation at initiation		
		1M n=10,365	3M n=21,910	6M n=502
PDC, n (%)				
Mean (SD)	0.91 (0.11)	0.90 (0.13)	0.91 (0.10)	0.91 (0.08)
<80%	4,288 (13.1)	1,653 (16.0)	2,584 (11.8)	51 (10.2)

80—<85%	2,599 (7.8)	813 (7.8)	1,720 (7.9)	26 (5.2)
85—<90%	4,103 (12.5)	1,297 (12.5)	2,748 (12.5)	58 (11.6)
90—<95%	6,888 (21.0)	1,885 (18.2)	4,799 (21.9)	204 (40.6)
95—<100%	10,453 (31.9)	2,798 (27.0)	7,522 (34.3)	133 (26.5)
100%	4,486 (13.7)	1,919 (18.5)	2,537 (11.6)	30 (6.0)
Patients with delayed injections by number of days,* n (%)				
No delay (<4)	31,954 (97.5)	10,281 (99.2)	21,280 (97.1)	393 (78.3)
4—<7	15,600 (47.6)	4,146 (40.0)	11,335 (51.7)	119 (23.7)
7—<14	13,473 (41.1)	3,512 (33.9)	9,663 (44.1)	298 (59.4)
14—<28	10,915 (33.3)	3,319 (32.0)	7,324 (33.4)	272 (54.2)
≥28	14,925 (45.5)	4,106 (39.6)	10,585 (48.3)	234 (46.6)

*Delays calculated per injection; patients can be present in >1 category.

LHRH: luteinizing hormone-releasing hormone; M: month; PDC: proportion of days covered; SD: standard deviation.