Community pharmacy: an innovative way to deliver cancer survivorship interventions

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Background

- Prostate cancer and its treatment can have a negative impact on men's health and quality of life.
- Despite evidence of the benefits of physical activity, only 10-32% of people living with and beyond cancer in the UK engage at recommended physical activity levels.
- Lifestyle interventions are of particular importance given the potential risk of cardiovascular disease associated with Androgen Deprivation Therapy (ADT) used to treatment prostate cancer

Community pharmacies have potential for providing local cancer survivor support services

Method

This pharmacy-led health and physical assessment and lifestyle **intervention** provided a lifestyle prescription using a computerised algorithm. This was repeated at 3 months and supported by 2 phone calls and instructional materials.

Eligibility criteria: included men with non metastatic prostate cancer, who had completed treatment and had at least one of three risk factors: underweight, overweight or obese, ADT, and or hypertension.

Outcome measures: Physical activity and quality of life were assessed at baseline, 3 and 6 months, this included pre- and post-intervention assessments of physical activity (accelerometry) and patient reported outcomes (European Prostate Cancer Index Composite, EPIC-26; Euro QOL 5-dimension, EQ5D-5L).

Research question: What is the feasibility and acceptability of a community pharmacy lifestyle intervention for improving physical activity and health related outcomes in men with prostate cancer?

Results

- Recruitment: 403 men were eligible, 172 (43%) responded and 116(29%) were recruited. We report 15% attrition as 99 (85%) of men completed the intervention in 9 pharmacies from 3 different business models (large, chain, independent).
- Outcomes at 3 months compared to baseline scores showed men's MVPA had increased by 34 ± 152 minutes p=0.018, but was not sustained at 6 months (Table 1).
- Although no statistically significant change was recorded in global quality of life at 6 months, there were a significant improvement in sexual and hormonal domains (Table 2).

Table 1. Change in accelerometry data during the community pharmacy lifestyle intervention

	Increase from baseline to three months				Increase from baseline to six months			
	Mean change	Lower 95% CI	Upper 95% CI	P-value	Mean change	Lower 95% CI	Upper 95% CI	P-value
Counts per day (/1000)	3.3 (48.3)	-5.6	12.2	0.466	-4.6 (72.7)	-18	8.8	0.499
MVPA per week (minutes)	34 (152)	6	62	0.018	14 (220)	-27	54	0.509
MVPA in bouts ≥ 10 minutes per week (minutes)	-2 (59)	-12	9	0.756	3 (70)	-9	16	0.603

MVPA = Moderate to Vigorous Physical Activity

Table 2. Change in patient reported outcomes (PROs) as measured with EPIC-26

EPIC-26 domains	Baseline n=114	6 months n=91	Mean change	P-value	Lower 95% CI	Upper 95% CI
Urinary Incontinence	82.93	82.04	0.9	0.364	-1.05	2.84
Urinary Irritative / Obstructive	88.4	88.72	-0.32	0.692	-1.94	1.29
Bowel	88.35	88.43	-0.09	0.923	-1.87	1.7
Sexual	20.72	23.6	-2.89	0.012	-5.11	0.66
Hormonal	73.39	76.77	-2.8	0.006	-4.8	-0.8

"It's a real learning experience for you as a pharmacist and it's a positive way to really show and help somebody in the community, it's a real positive thing."

Conclusion

- Community pharmacy-based **lifestyle intervention had benefits** for men living with and beyond prostate cancer. The intervention was feasible and acceptable to men and could be delivered successfully in a commercial pharmacy model.
- Community pharmacies **were easy to access** for men and pharmacy teams, who had the skills and confidence to complete the training and deliver the intervention.
- Whilst this study provides evidence of the potential short-term benefits of physical activity and dietary intervention for men, to **address comorbidities after prostate cancer treatment**, meeting the MVPA guidance for physical activity still proved a challenge in 3 months. A further randomised controlled trial is needed to assess the effectiveness and relative cost-efficacy of community pharmacy models for supporting people living with and beyond a cancer diagnosis.

Lemanska A, Poole K, Griffin BA, Manders R, Saxton JM, Turner L, Wainwright J, Faithfull S (2019) Community pharmacy lifestyle intervention to increase physical activity and improve cardiovascular health of men with prostate cancer: a phase II feasibility study <https://bmjopen.bmj.com/content/9/6/e025114.full>