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POSTER OP1

Digital Transformation in Obesity Care: Evaluating the Impact of a Hybrid Digital Care Pathway on NHS Capacity in South East London

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BACKGROUND

- In England, 64% of adults are classified as living with overweight or obesity (1), creating substantial capacity constraints and delaying NHS implementation of funded pharmacotherapies, such as GLP-1 receptor agonists (RAs).
- The private sector has expanded significantly, with approximately 1.4 million patients accessing weight management treatments privately via digital providers (2).
- Recognising that digital care pathways can optimise capacity and patient access, NICE has recommended digital technologies as an option to deliver weight management services while generating real-world evidence (RWE). Seven of these approved technologies enable remote prescribing and monitoring of weight management medications (3).
- While primarily operating in the private market, several platforms have been commissioned by the NHS, allowing patients to benefit from remote medicine delivery and ongoing virtual care.

OBJECTIVE

- This study aimed to evaluate the impact of digital technologies facilitating remote care for patients living with overweight and obesity on NHS workforce capacity and costs in South East London.

METHODS

- Two treatment pathway scenarios were modelled to evaluate their relative impact on workforce capacity and healthcare expenditures across South East London.
- The patient sample size (n=967) was derived from an ongoing regional evaluation of a NICE-approved digital technology commissioned by the Health Innovation Network (South London) (4).
- The baseline pathway established an appointment resource allocation model per patient episode across a multidisciplinary care team (MDT).
- Scenario 1: Primary care delivery of the conventional tirzepatide pathway in accordance with NICE TA1026 (5). Data from the General Practice Workforce, England regional tables (6) were used to determine the total workforce required in South East London to deliver tirzepatide to the study cohort.
- Scenario 2: A hypothetical hybrid wrap-around digital model leveraging technology for comprehensive weight management support while reducing primary care clinical touches. Workforce requirements were estimated as in Scenario 1. Medication prescribing and monitoring were retained within general practice. A first-year technology implementation cost (7) was included and clinical feasibility was validated with practicing NHS clinicians.

RESULTS

- Scenario 1 required a total of 41,581 primary care appointments with an annual cost of £1,192,298.
- Scenario 2 reduced total required appointments to 8,703 and total expenditure (inclusive of digital technology implementation) to £696,513 This represents a 79.1% reduction in primary care appointment burden and a 41.6% net cost reduction.

Figure 1. Hybrid vs tirzepatide pathway scenario: cost analysis

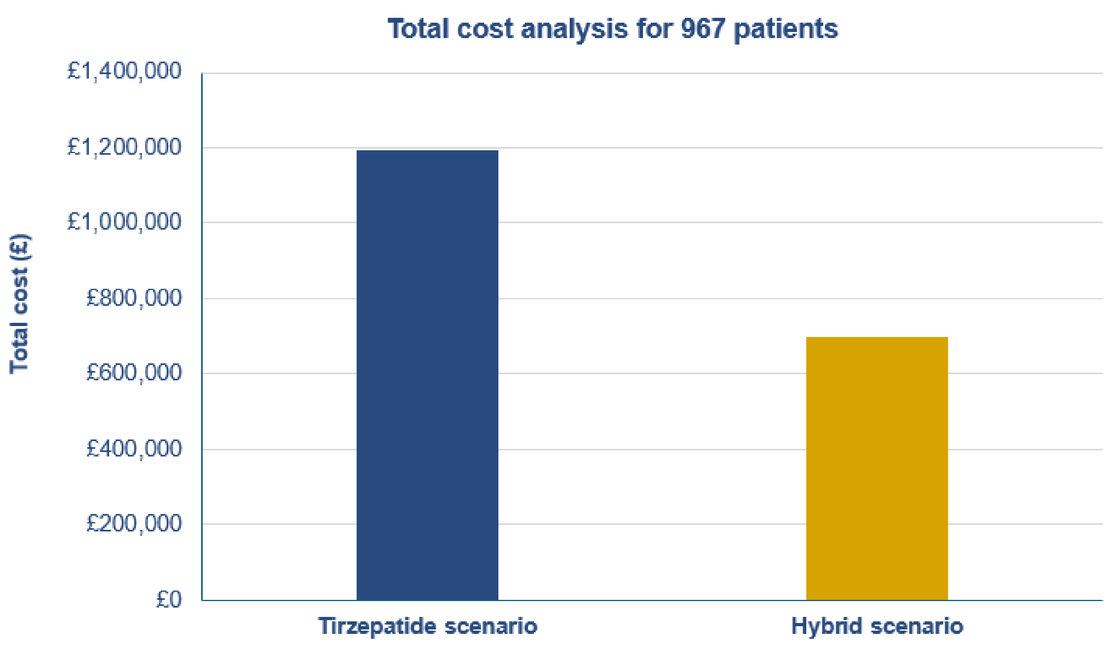


Figure 2. Hybrid vs tirzepatide pathway scenario: total appointments

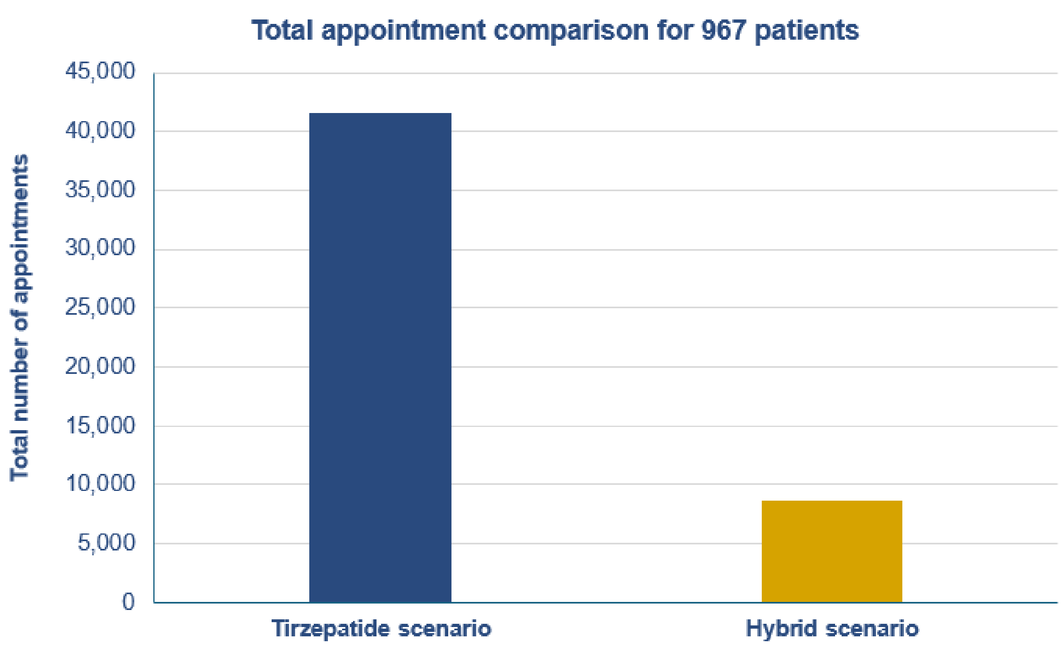


Table 1. Workforce and total cost for tirzepatide delivery in primary care during the first year as per NICE TA1026

Healthcare professional	Time slot (minutes)	Number of appointments	Cost per slot (£)	Total cost year 1 (£)
General practitioner	10	21	41.00	861.00
Nurse total	20	7.5	18.55	139.13
Healthcare Assistant	10	1	7.14	7.14
Clinical pharmacist	10	3	11.29	33.87
Dietician	30	5	27.19	135.95
Psychologist	30	5.5	33.88	55.90

Table 2. Workforce and total cost for tirzepatide delivery in primary care during the first year in a hypothetical hybrid scenario

Healthcare professional	Time slot (minutes)	Number of appointments	Cost per slot (£)	Total cost year 1 (£)
General practitioner	10	0	41.00	0.00
Nurse total	20	0	18.55	0.00
Healthcare Assistant	10	0	7.14	0.00
Clinical pharmacist	**10**	**9**	**11.29**	**101.61**
Dietician	30	0	27.19	0.00
Psychologist	30	0	33.88	0.00

Table 3. Total number of appointments and costs for scenario 1 (n=967)

Healthcare professional	Total appointments	Total cost (£)
General practitioner	20,307	832,587.00
Nurse total	7,252.5	134,533.88
Healthcare Assistant	967	6,904.38
Clinical pharmacist	2,901	32,752.29
Dietician	4,835	131,463.65
Psychologist	5,318.5	54,057.23
Total	**41,581**	**1,192,298.43**

Table 4. Total number of appointments and costs for scenario 2 (n=967)

Healthcare professional	Total appointments	Total cost (£)
General practitioner	0	0.00
Clinical pharmacist	8,703	98,256.87
Subtotal	**8,703**	**98,256.87**
Implementation cost	n/a	500,000.00
Total	**8,703**	**695,513.74**

Limitations

- **Model-based assumptions:** The workforce capacity and financial estimates are derived from decision-analytic modeling rather than longitudinal observational real-world data.
- **Sample size and scope:** The cohort size (n=967) reflects a specific regional evaluation within South East London, which may limit direct generalisability to other Integrated Care Boards (ICBs) with differing demographics or baseline primary care capacity.
- **Hypothetical hybrid pathway:** Scenario 2 models a hypothetical hybrid wrap-around framework with fixed technology implementation costs (£500,000), which may vary depending on local procurement, IT integration, and scaling dynamics
- **Clinical and operational variability:** Long-term patient adherence, treatment persistence, discontinuation rates, and real-world titration protocols could impact total appointment volumes and overall cost-offset projections over time.

CONCLUSIONS

- Digital care pathways offer a highly capacity-releasing and cost-effective model for weight management, expanding patient access to NICE-approved therapies.
- A comprehensive digital pathway could substantially scale access to obesity treatments and holistic multidisciplinary care across the NHS.
- Nevertheless, pathways must remain personalised; hybrid models integrating clinician consultations provide an essential option for patients requiring face-to-face care.

ACKNOWLEDGEMENTS & DISCLOSURES

This project was sponsored by Roche Products Ltd. Abigail White is no longer an employee of Roche Products Ltd.

REFERENCES

1. NHS England. Adult obesity. Available at: https://www.england.nhs.uk/ourwork/prevention/obesity/
2. Tony Blair Institute for Global Change. Anti-obesity medications: Faster, broader access can drive health and wealth in the UK. Available at: https://institute.global/insights/public-services/anti-obesity-medications-faster-broader-access-can-drive-health-and-wealth-in-the-uk
3. NICE Digital technologies for managing overweight and obesity: Early Value Assessment (HTG700). Available at: https://www.nice.org.uk/guidance/htg700/informationforpublic
4. ISRCTN Registry. Evaluating the effectiveness of a digital weight management service in South East London (ISRCTN18398308). Available at: https://www.isrctn.com/ISRCTN18398308
5. National Institute for Health and Care Excellence (NICE). Tirzepatide for managing overweight and obesity (TA1026). Available at: https://www.nice.org.uk/guidance/ta1026 [Accessed September 2026].
6. NHS Digital. General Practice Workforce, England. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services
7. Health Innovation Network South London. £1.3m research grant awarded for three-year study to evaluate effectiveness of digital weight management. Available at: https://healthinnovationnetwork.com/news/1-3m-research-grant-awarded-for-three-year-study-to-evaluate-effectiveness-of-digital-weight-management/