KiActiv®

NHS East Suffolk and North Essex NHS Foundation Trust

Health Innovation East

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Evaluating the Impact of a Novel Digital Service Alongside Routine Clinical Care in East Suffolk and North Essex

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INTRODUCTION

BACKGROUND:

- This is a collaborative, ongoing project between NHS East Suffolk and North Essex Foundation Trust (ESNEFT) Post-Covid Service (PCS) and KiActiv®. These outcomes build on the poster presented at the 2024 National Long Covid conference.

AIM:

- To evaluate the impact of KiActiv® Health to support patients to pace more effectively and optimise their everyday movement in all intensities to enhance self-management of Long Covid and associated symptoms.

METHODS

IMPLEMENTING A NOVEL DIGITAL SERVICE:

- A seamless referral pathway has been established to ensure patients are offered KiActiv® at appropriate points, with each unique referral point assigned a specific code for simple future analysis.
- This includes referral at initial 1:1 assessment, referral at 12-week follow-up appointment, and referral for individuals who are undergoing long-term fatigue support.
- Patients are provided a proprietary wearable device which accurately and objectively captures their physical energy expenditure associated with all everyday movement.
- An interactive online dashboard enables patients to self-monitor daily movement alongside key symptoms.
- Patients are supported for 12 weeks via telephone by a KiActiv® Mentor, and retain access to the technology beyond this point.

OUTCOME MEASURES:

- Impact is assessed using validated patient reported outcome measures (PROMs), including EQ5D-5L, Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), Self-Efficacy for Managing Chronic Disease Scale (SEMCDS), and Work and Social Adjustment Scale (WSAS).
- Return on investment (ROI) analysis using validated methodology to calculate quality-adjusted-life-years (QALYs) gained[1] from EQ5D-5L, and the Social Value gain associated with SWEMWBS benefits[2,3].

RESULTS

UPTAKE, COMPLETION, DEMOGRAPHICS:

- To date, 474 patients have been referred to KiActiv, with a 96% enrolment rate and 84% 12-week completion rate.
- 78% of patients have reported at least one other comorbidity, 70% are female, and the average age is 50 years.

PATIENT IMPACT & RETURN ON INVESTMENT:

- Statistically significant improvements ($p<0.05$) have been recorded in EQ5D-5L, SWEMWBS, SEMCDS Fatigue, and WSAS scores (Table 1).
- Patients made statistically significant changes to their Usual Activities domain of EQ5D-5L, and Home Management, Private Leisure and Social Leisure domains of WSAS, showing improved productivity.
- Overall, 92% of patients recommend KiActiv® to friends & family.
- Financial analysis demonstrates significant positive ROI, in year, of +£8.55 per £1 spent on the digital service (Table 2).

Questionnaire (*Domain*)	Pre Score	Post Score	Change	p-Value
EQ5D-5L (VAS)	53.9	58.7	4.8	<.001
Mobility	2.3	2.2	-0.1	<.05
Usual Activities	2.9	2.7	-0.2	<.05
SWEMWBS	19.7	20.9	1.2	<.001
SEMCDS	5.3	6.0	0.7	<.001
Fatigue	4.1	5.2	1.1	<.001
WSAS (overall)	25.4	23.8	-1.6	<.01
Home Management	5.0	4.5	-0.5	<.01
Private Leisure	5.2	4.7	-0.5	<.05
Social Leisure	5.8	5.3	-0.5	<.05

Table 1: Group mean pre-score, post-score, and average change in each of the validated PROMs questionnaires with p-values to denote statistical significance. Please note, negative changes in EQ5D-5L domains, WSAS overall score and domains indicated reduction in symptom score and therefore an improvement.

Intervention Cost	
Target Population Size	1,000
Cost per person	£145
Total	**£145,000**
Completion Rate	84%
Individuals Benefitting	840
Benefits Summary	
QALYs gained per person	0.03
Value of QALYs gained per person	£586
Social Value gained per person	£891
Total QALYs gained	25
Total Value of QALYs gained	£491,888
Total Mental Wellbeing Social Value	£748,413
Total Economic Benefit	**£1,240,301**
Return on Investment	
Net Economic Benefit	**£1,095,301**
ROI for every £1 spent	**£8.55**

Table 2: Financial Return-On-Investment analysis using validated methodologies[1,2,3] calculate QALY gain from EQ5D-5L, and Social Value gain from SWEMWBS mental wellbeing benefits.

TAKE HOME MESSAGE

Meaningful patient outcomes are being delivered, with demonstrable positive, in-year return on investment

DISCUSSION

KEY FINDINGS & FUTURE DIRECTION:

- The collaborative approach between ESNEFT PCS and KiActiv® continues to deliver meaningful impact for Long Covid patients across a range of validated outcome metrics.
- The positive, in-year ROI demonstrated using validated methodologies strengthens the argument for wider implementation of the digital service as an adjunct to existing PCS clinical care, particularly as multiple services in England adapt to the new commissioning landscape beyond March 2025.
- KiActiv® technology highlights the importance of understanding personal everyday movement in the context of pacing, managing energy levels and reducing fatigue during recovery.

References:

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