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A rapid-access physiotherapy pathway for workers with musculoskeletal conditions who were newly absent or at risk of sickness absence: a prospective service evaluation

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Abstract

Purpose

To evaluate delivery of an early, work-focused physiotherapy pathway and describe changes in work participation, work impairment and health-related quality of life among workers with musculoskeletal conditions.

Methods

This prospective NHS service evaluation included workers newly absent or at risk of sickness absence between November 2025 and April 2026. Physiotherapists offered rapid assessment, work advice and fit notes. Prognostic risk guided rehabilitation and access to social prescribing. Work status and Work Productivity and Activity Impairment (WPAI) were assessed at baseline and discharge. Health outcomes were also assessed three months after discharge. Paired analyses estimated within-participant change.

Results

Of 178 participants treated, 55 were off work at referral and 50 (90.9%) had returned by discharge. Of 57 initially working with modifications, 50 were working without a recorded fit note at discharge. Overall work impairment fell by 39.8 percentage points (95% CI 32.9 to 46.8). An appointment within three working days was offered to 144/178 (80.9%). Social prescribing uptake increased from 2.2% in the low-risk group to 15.0% and 44.0% in the medium- and high-risk groups. The paired mean EQ-5D-5L index increased by 0.304 at three months (95% CI 0.259 to 0.348).

Conclusion

The service delivered early work-focused care with different levels of support across risk groups. Work participation and productivity improved by discharge. A controlled evaluation with longer occupational follow-up is needed.

Introduction

Musculoskeletal (MSK) ill health is a major cause of work-related sickness absence in the United Kingdom (UK) [1]. Return to work depends on job demands, workplace support and social circumstances as well as clinical recovery [2] [3]. For people still at work, the immediate priority may be to manage symptoms while continuing in their role.

Community MSK waiting times can delay assessment during the early stages of work difficulty [4]. In 2025, NHS England’s Community Musculoskeletal Getting It Right First Time (GIRFT) programme invited

bids from services to pilot early support for people newly absent or at risk of sickness absence. In York, the MSK service combined rapid clinical assessment with work advice, fit-note provision and access to social prescribing. We evaluated pathway delivery and described changes in work status, productivity and health-related quality of life.

Methods

Design and governance

This paper reports the evaluation of a proof-of-concept Work and Health pilot delivered by the Musculoskeletal Service, York and Scarborough Teaching Hospitals NHS Foundation Trust. The pilot was funded through the NHS England Community Musculoskeletal Get It Right First Time (CMSK GIRFT) programme, commissioned by the Joint Work and Health Directorate, and was designed to support people newly absent from work, or at risk of work absence, because of MSK conditions. Work and Health outcome measures were agreed a priori with CMSK GIRFT.

This project was undertaken as a service evaluation of a routinely delivered clinical service and was registered prospectively with the Clinical Governance Team at York and Scarborough Teaching Hospitals NHS Foundation Trust (reference SURGERY/MSK/87). In accordance with Health Research Authority guidance, NHS Research Ethics Committee review and HRA approval were not required. Outcome data were collected prospectively as part of the agreed service-evaluation framework, including planned three-month follow-up, and were analysed in de-identified form.

Eligibility and pathway

Patients newly signed off work, or at risk of being signed off because of MSK ill health, and with no concerns for serious or non-MSK pathology were eligible for the pilot. Suitable patients were identified by clinical teams within participating primary care networks and offered referral to the Work and Health service. Eligible patients using the service's online self-referral system were also offered access. The pathway aimed to offer specialist assessment within three working days of referral.

Figure 1 shows the clinical pathway. Patients accepting referral were booked directly into a new-patient assessment clinic with an experienced Band 7 physiotherapist working at enhanced practice level.

At the initial appointment, patients were screened for serious pathology and for features requiring investigation or review by the MSK triage service; onward referrals were initiated when indicated. Assessment incorporated a health-coaching 'what matters to you' conversation to identify individual goals, resources and barriers to recovery [5]. Participants then completed either the STarT Back questionnaire for spinal symptoms [6] or the STarT MSK questionnaire for peripheral musculoskeletal symptoms [7]. These validated prognostic tools estimate risk of persistent symptoms and disability and classify participants as low, medium or high risk [6, 7]. Within this pilot, risk category informed the

structure of the offered clinical intervention, however this could still be adapted on the basis of clinical need and work circumstances.

Participants classified as low risk were offered a light-touch intervention consisting of a single session with a specialist MSK physiotherapist. This session focused on education, reassurance, self-management advice, active recovery strategies and the development of an individualised return to work (RTW) plan. Participants also received a digital exercise programme and a follow-up health coaching telephone call 1–2 weeks later to review progress, reinforce key messages and address any emerging barriers to recovery. Where appropriate, participants could also be signposted to local physical activity and wellbeing services.

Participants classified as medium risk received a physiotherapist-led programme of rehabilitation comprising three to four treatment sessions. Intervention focused on functional rehabilitation, graded activity, goal setting, health coaching and return-to-work planning. Referral to a social prescriber was available where wider social barriers to recovery or work participation were identified.

Participants classified as high risk were offered a multidisciplinary intervention involving both a specialist musculoskeletal physiotherapist and a social prescriber. This approach sought to identify and address physical, psychological, social and environmental barriers to recovery through a combination of multidisciplinary assessment, health coaching, rehabilitation and social prescribing support.

Physiotherapists could issue a UK statement of fitness for work (fit note) at any tier. This records whether a person is unfit for work or may be fit with support, such as a phased return or altered duties.

Outcomes

Outcome measures were agreed prospectively with NHS England as part of the pilot evaluation framework and were collected routinely as part of clinical care.

Work status was recorded at referral and discharge. Referral records distinguished people working, working with modifications and off work. Discharge records distinguished people working without a recorded fit note, working with a fit note, and off work.

Work-related outcomes were measured using the Work Productivity and Activity Impairment questionnaire (WPAI) [8]. The WPAI generates four percentage outcomes: work time missed because of health (absenteeism), impairment while working (presenteeism), overall work impairment and activity impairment. Scores range from 0% to 100%, with higher scores indicating greater impairment.

Health-related quality of life was measured using the EuroQol Five-Dimension Five-Level Questionnaire (EQ-5D-5L) [9, 10]. The EQ-5D-5L is a validated generic measure comprising mobility, self-care, usual activities, pain/discomfort and anxiety/depression. Index values were recalculated directly from the five-dimension responses using the published 2018 England EQ-5D-5L value set [11], where 1 represents full health and 0 represents a health state equivalent to death, and negative values representing a health

state worse than death. Participants also completed the EQ visual analogue scale (EQ VAS), which records self-rated health from 0 (worst imaginable health) to 100 (best imaginable health).

Demographic and service-level data included age, sex, ethnicity, employment status, referral source, Index of Multiple Deprivation decile, risk category, intervention received and treatment contacts. Total contacts were derived from recorded face-to-face and telephone contacts with physiotherapy and social prescribing, together with recorded multidisciplinary contacts.

Work outcomes were measured through discharge. EQ-5D-5L index and EQ visual analogue scale (EQ VAS) were also collected three months after discharge.

Analysis

Descriptive statistics were used to summarise participant characteristics, service activity and outcome measures. Continuous variables are presented as means and standard deviations (SD) and categorical variables as frequencies and percentages.

Changes in EQ-5D-5L index, EQ VAS and WPAI scores were assessed using paired t-tests. Analyses were restricted to participants with paired baseline and follow-up data for the relevant outcome. Mean within-participant differences and 95% confidence intervals (CI) were calculated. Statistical significance was defined as $p < 0.01$.

Overall work impairment was recalculated consistently from the recorded percentage scores for absenteeism (A) and impairment while working (P), using $A + (1 - A/100) \times P$. Recorded component scores were treated as the source values. Calculations retained full precision until reporting. Values coded as not recorded were treated as missing. This recalculation resolved inconsistencies in the stored overall scores. When absenteeism was 100%, overall work impairment was assigned 100% and standalone presenteeism was treated as not applicable. The service recorded zeros for this item when participants had not worked. Paired presenteeism analyses included only participants with less than 100% absenteeism and a recorded presenteeism score at both assessments.

Analyses used Microsoft Excel (Microsoft 365 for Enterprise, version 2605, Microsoft Corporation, Redmond, WA, USA). The WPAI analyses were generated using Python with SciPy 1.17.0. The pathway diagram was prepared in Microsoft Visio.

Results

Participants and pathway delivery

Between November 2025 and April 2026, 199 patients were referred to the Work and Health pilot and 181 met the inclusion criteria. Reasons for exclusion were absence for a non-musculoskeletal reason (n = 4), unemployment (n = 3), long-term musculoskeletal sickness absence (n = 2), retirement (n = 1),

student status (n = 1) and an unspecified reason (n = 7). Three of the 181 eligible patients did not attend their initial appointment; 178 participants therefore received initial assessment and treatment.

Baseline characteristics of the 178 treated participants are shown in Table 1. Mean age was 45.4 years (SD 12.8), 98 (55.1%) were female, and 112 (62.9%) were either working with modifications or not working at referral. Most participants (107/178, 60.1%) were classified as medium risk using the STarT tools.

Table 1
Characteristics of the 178 treated participants

Characteristic	Category	Value or n	%
Age, years	Mean (SD)	45.4 (12.8)	—
Sex at birth	Female	98	55.1%
	Male	80	44.9%
Index of Multiple Deprivation (IMD)	Deciles 1–2 (most deprived)	16	9.0%
	Deciles 3–4	29	16.3%
	Decile 5–6	29	16.3%
	Deciles 7–8	45	25.3%
	Deciles 9–10 (least deprived)	59	33.1%
Referral source	Self-referral	115	64.6%
	Gateway referral	63	35.4%
STarT risk group	Low	46	25.8%
	Medium	107	60.1%
	High	25	14.0%
Employment status	Employed	151	84.8%
	Self employed	27	15.2%
	Full time	131	73.6%
	Part time	47	26.4%
Work status at referral	At work	66	37.1%
	At work with modifications	57	32.0%
	Not at work	55	30.9%

Treatment intensity was guided by baseline risk stratification and clinical need, and adapted to the presenting condition, work status, psychosocial barriers and individual goals. Contact component data were available for all 178 participants. An initial assessment within three working days was offered to 144 participants (80.9%).

Table 2 shows the care delivered by risk group. Mean total contacts increased from 3.5 in the low-risk group to 4.7 in the medium-risk group and 5.6 in the high-risk group. Social prescribing and multidisciplinary input were concentrated among higher-risk participants: 44.0% of the high-risk group accessed social prescribing and 36.0% received recorded multidisciplinary input, compared with 2.2% and 0%, respectively, in the low-risk group.

Table 2
Care delivered by prognostic risk group

Risk group	Total n	Mean total contacts (SD)	% accessing social prescribing	% accessing MDT
Low risk	46	3.5 (1.5)	2.2%	0.0%
Medium risk	107	4.7 (2.3)	15.0%	1.9%
High risk	25	5.6 (3.1)	44.0%	36.0%

MDT = multidisciplinary team.

Work participation

Of the 55 participants off work at referral, 50 (90.9%) were working by discharge, including four with a fit note. Of the 57 initially working with modifications, 50 (87.7%) were working without a recorded fit note at discharge, five were working with a fit note and two were off work.

Across the treated cohort, 168/178 (94.4%) were recorded as working at discharge, including nine with a fit note. Seven were off work and work status was missing for three (Table 3).

Table 3
Work status at referral and discharge

Status at referral	n (%)	Status at discharge	n (%)
At work	66 (37.1)	At work without a recorded fit note	159 (89.3)
At work with modifications	57 (32.0)	At work with a fit note	9 (5.1)
Off work	55 (30.9)	Off work	7 (3.9)
Missing	0 (0)	Missing	3 (1.7)

Percentages use all 178 treated participants. Columns show separate distributions. Rows do not describe individual transitions.

Work productivity and activity impairment

At baseline, WPAI scores indicated substantial work-related and activity-related impairment. Mean overall work impairment was 71.2% (SD 29.3), while mean activity impairment was 66.8% (SD 23.4). Among 132 participants with less than 100% absenteeism, mean impairment while working was 57.0% (SD 27.4), and mean work time missed due to health was 35.4% (SD 43.3).

Paired absenteeism, overall work impairment and activity impairment analyses included 144 participants. The paired presenteeism analysis included 101 participants with less than 100% absenteeism at both assessments (Table 4).

All four recorded WPAI domain scores decreased. Work time missed fell by 28.7 percentage points and impairment while working by 26.8 points among the 101 participants included in its paired analysis. Overall work impairment fell from 72.0% to 32.1% (mean change − 39.8 points, 95% CI − 46.8 to − 32.9; $p < 0.001$). Activity impairment fell from 67.9% to 31.1% (mean change − 36.8 points).

Table 4
Paired work productivity and activity impairment outcomes

WPAI outcome	n	Baseline mean	Discharge mean	Mean change	95% CI	P-value
Work time missed	144	35.9	7.2	-28.7	-36.6, -20.8	< 0.001
Impairment while working	101	56.6	29.8	-26.8	-34.3, -19.4	< 0.001
Overall work impairment	144	72.0	32.1	-39.8	-46.8, -32.9	< 0.001
Activity impairment	144	67.9	31.1	-36.8	-42.5, -31.2	< 0.001

Scores are percentages. Mean changes and 95% confidence intervals are expressed in percentage points (discharge minus baseline). Presenteeism was not applicable when absenteeism was 100%. Its paired analysis therefore includes 101 participants, compared with 144 for the other domains.

Health-related quality of life

At discharge, 145 participants provided EQ-5D-5L index data and 144 provided EQ VAS data. At three months after discharge, 125 participants (70.2%) provided both. Online Resource 1 gives the distributions at each time point.

In paired analysis, the EQ-5D-5L index improved by 0.272 points from baseline to discharge (95% CI 0.230 to 0.314; $p < 0.001$) and by 0.304 points from baseline to three months (95% CI 0.259 to 0.348; $p < 0.001$). EQ VAS improved by 13.7 points at discharge (95% CI 9.6 to 17.9; $p < 0.001$) and by 16.6 points at three months (95% CI 12.1 to 21.1; $p < 0.001$).

Discussion

The pathway reached workers before and during sickness absence. Four in five participants were offered an assessment within three working days. By discharge, 50 of the 55 people initially off work had returned. Work impairment also fell among participants with paired observations. Given the aims of the pathway these work status findings were of particular significance. These findings are consistent with previous systematic review level evidence[12, 13] that early, multicomponent and workplace interventions can improve return to work and reduce sickness absence for people with MSK conditions, although the effects vary across interventions

The Irish Work-Able Solutions evaluation embedded work-focused occupational therapy in rheumatology care to support job retention and return to work [14]. Aanesen and colleagues examined how primary care physiotherapists delivered stratified vocational advice to people already on sick leave [15]. The York pathway also admitted workers before absence and combined vocational advice with direct access to MSK treatment and fit-note provision. Almost two thirds of participants self-referred. This route may be relevant for services seeking to reach workers before a sickness certificate prompts referral.

Service use patterns suggest that the use of risk stratification was a practical method of allocating resource and anticipating the intensity and breadth of support patients may require. The pilot demonstrated that the number of clinical contacts and use of social prescribing increased in line with risk stratification. Although this indicates that the pathway worked as intended it does not establish that risk stratification in itself was responsible for the observed clinical outcomes. In the STarT MSK cluster randomised trial risk stratification did not significantly improve pain or function compared with usual care [16]. However, that trial did not consider work outcomes and thus this is an area of potential future investigation.

Access to social prescribing extended the scope of the clinical pathway beyond the clinical management of the presenting MSK condition. It enabled participants to receive support across a wide range of health, wellbeing, psychological, and social factors that could affect recovery and work participation. Uptake of social prescribing increased across the STarT risk categories which is consistent with a greater need for additional support within higher risk cohorts for additional intervention to manage psychosocial factors. This aligns with previous arguments that social prescribing may strengthen the social component of biopsychosocial MSK care [17]. However, this service evaluation was not designed to test the relative contribution of social prescribing and the evidence for its effectiveness for people with MSK ill health remains preliminary [17, 18].

Limitations

The main limitation is the absence of a comparator or control group. Participants were recruited early in an episode of MSK ill health and so natural recovery, regression to the mean and changes in workplace support may explain some of the improvement. Referral and self-referral may have selected people motivated to engage. Only 16 participants lived in the two most deprived deciles, limiting what can be inferred about service reach in those communities. Outcomes were self-reported, assessors were unblinded and incomplete follow-up may have introduced responder bias.

Modified duties at referral and fit-note status at discharge describe different aspects of work. A worker could continue with adjustments after a fit note ended. Work status was last recorded at discharge, so sustained return to work and subsequent sickness absence could not be assessed.

Conclusion

The proof of concept pathway delivered rapid work-focused physiotherapy to people newly absent and those at risk of absence from work. Contact intensity and social prescribing uptake increased across risk groups. Work participation and productivity improved by discharge. A controlled evaluation with longer work follow-up could establish whether the pathway improves sustained employment outcomes.

Declarations

Funding.

The pilot was funded through the NHS England Community Musculoskeletal GIRFT programme, commissioned by the Joint Work and Health Directorate.

Ethics. The Trust prospectively registered this service evaluation (SURGERY/MSK/87). NHS Research Ethics Committee review and Health Research Authority approval were not required. Analyses used de-identified routine service data.

All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000 (5). Informed consent was obtained from all patients for being included in the study.

Competing interests.

The authors have no relevant financial or non-financial interests to disclose.

Author Contribution

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by G.W., J.M., A.C., A.C., and R.A. The first draft of the manuscript was written

by G.W. and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

Data Availability

The datasets generated during and/or analysed during the current study are available from the corresponding author on reasonable request.

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Figures

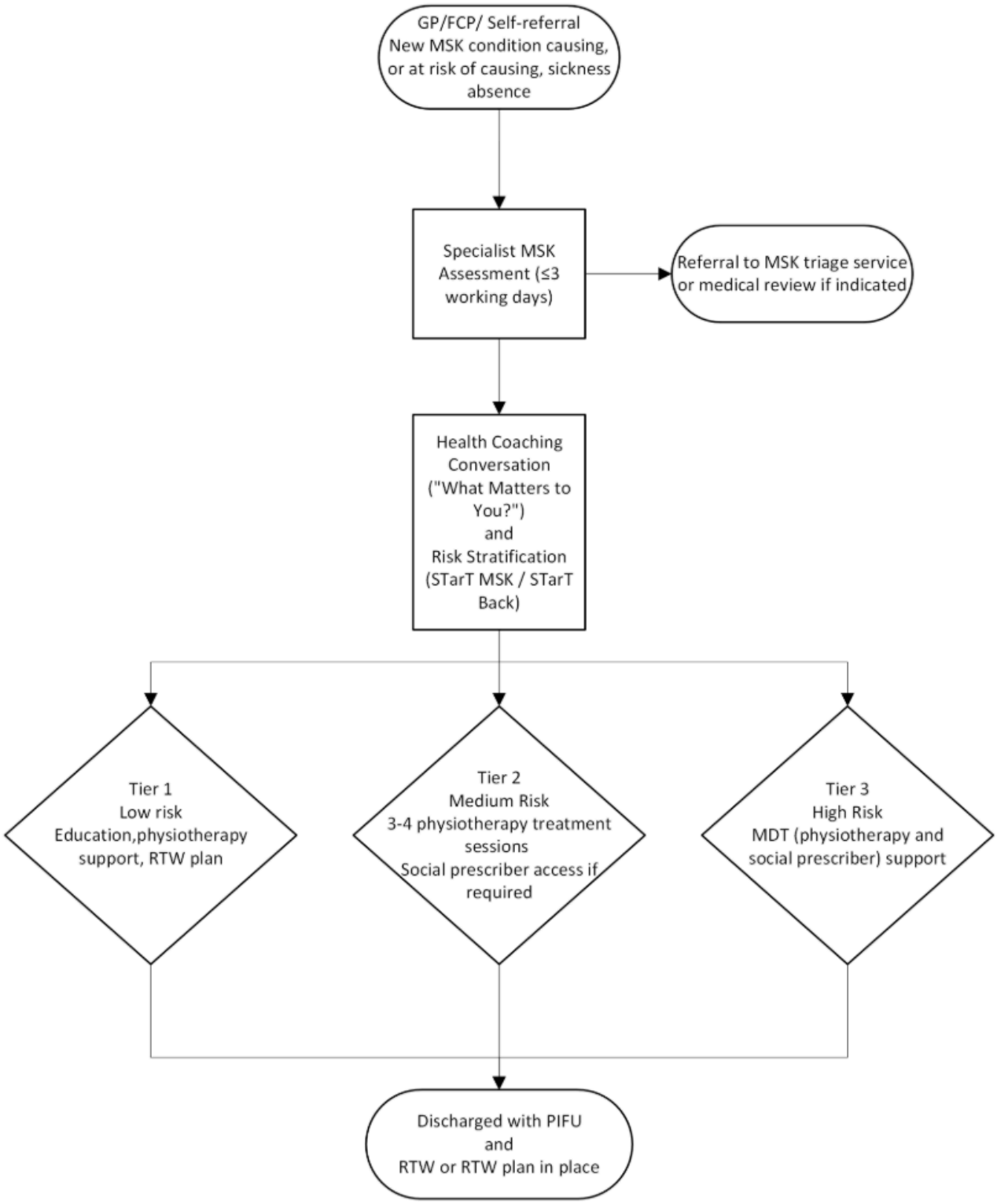

Figure 1

Work and Health clinical pathway

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