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A multifaceted implementation strategy versus passive implementation of low back pain guidelines in general practice: a cluster randomised controlled trial

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Background & Aim: Guidelines are often not being used in clinical practice. However, actively supporting healthcare professionals in evidenced-based treatment may help the implementation of guidelines. Danish guidelines for low back pain (LBP) recommend an increased focus on primary care treatment of LBP, which is expected to reduce referrals to secondary care. The aim was to evaluate if a multifaceted implementation strategy in primary care (MuIS) could reduce secondary care referrals.

Method: in a cluster randomised design 189 general practices from the North Denmark Region were invited to participate. Practices were randomised (1:1) to MuIS or a passive implementation strategy (PaIS). Included were patients with LBP aged 18 to 65 years, without signs of serious underlying pathology, and were not pregnant. We developed a MuIS including outreach visits, quality reports, and tools for subgrouping patients with LBP. Both implementation strategies included the usual dissemination of guidelines, guideline-concordant structuring of the medical record, and a new referral opportunity for patients with psycho-social problems. Outcome measures were referral to secondary care, cost of care, functional disability, pain level, self-rated health, sick leave, employment status, and satisfaction with treatment. Patients and the assessment of outcomes were blinded.

Results: Between January 2013 and July 2014 (28 MuIS, 26 PaIS) included 1,101 patients (539 MuIS, 562 PaIS). Follow-up data were available on 100%. Twenty-seven patients (5.0%) in the MuIS group were referred to secondary care vs 59 patients (10.5%) in the PaIS group. The adjusted odds ratio was 0.52 [95% CI 0.30 to 0.90; $p=0.020$]. The MuIS was found cost-saving from a health sector perspective (£406.51 vs £499.71 per patient) after 12 weeks.

Conclusions: Using a MuIS reduced the referral of patients to secondary care and was cost-saving. This study supports the application of a MuIS when implementing guidelines in general practice.