

391: IMPROVING TEST ORDERING BY PEER REVIEW: A MULTICENTRE RCT IN GENERAL PRACTICE

Authors:

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Objective:

This study investigates a strategy to improve GPs' test ordering behaviour. The method combines guideline dissemination, individual written feedback, and peer review, and was developed after literature study, expert meetings and a pilot study.

Research questions:

1. What is the effect of this strategy?
2. How feasible is this strategy on improving test ordering by GPs?

Method:

The study is being executed in five districts in the southern and middle part of The Netherlands with a diagnostic centre. A diagnostic centre is an institute, generally linked to a hospital, where GPs can order tests without referring the patient to a specialist. Intervention period: 2 years. The intervention was aimed at 30 diagnostic tests (laboratory, imaging, and function tests), grouped in tests related to cardiovascular diseases, upper and lower abdominal complaints and tests related to 3 other clinical problems COPD / asthma, general fatigue, and degenerative joint complaints. Peer review sessions were conducted three times a year. Two weeks before the session each GP received the guidelines and a graphical feedback report on the number of tests he / she has ordered, standardised for practice size, within the last 6 months. The report also shows the median of the local GP group and the median of the district.

The study was designed as a multicentre RCT with an incomplete block design. Randomisation at local GP group level was in three arms: ie. Arm I receiving the total strategy on the first group tests, Arm II on the second group tests; they were blind controls for each other. GPs from arm III received only written feedback on the first group tests. A local GP group is an existing infrastructure of Dutch GPs, a small group (6-10 persons) working in the same district.

Results:

The recruitment of GP groups was successful. In total 40 groups with 297 GPs were included. Baseline measurements showed a large variation between the numbers of tests ordered at all levels: the individual GP, the local GP groups, and the district. The standardised total number of tests per GP per year was 648 (95% CI 637-732), with a skewed distribution.

1. The GPs intervened in arm I on the first test group decreased in their testing by 6.2%, while the control arm showed an increase of 3.5%. ($p = .032$). The GPs in arm II intervened on the second group tests showed a decrease of 6.6%, while in the control arm the number of second group tests increased with 1.1% ($p = .114$). Comparing feedback only and the total strategy there was a 6.2 % decrease in the total numbers of tests ordered per half year in the total strategy arm and a 3.6 % increase in the feedback arm ($p = .007$). Results of multilevel analyses will be reported at the congress.
2. Process evaluation of 156 quality meetings of 26 local GP groups showed a participation rate of 81% (95% CI: 77%-85%) in the first year and 73% (95% CI: 68%-77%) in the second. Three features of the quality meetings, mutual feedback by working in pairs, making individual plans for change and group plans for change were done in both intervention years to a satisfactory level.

Conclusion:

For participating GPs and local GP groups the strategy provides an effective, new and inspiring form of peer review on the subject of test ordering. A nation-wide implementation is now being prepared.