

A practice based strategy to improve GPs' test ordering

By written feedback, guidelines dissemination, and small group quality improvement

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Objective

Systematic development and evaluation of a multifaceted strategy to improve GPs' test ordering performance



Intervention

➤ 3 times a year:

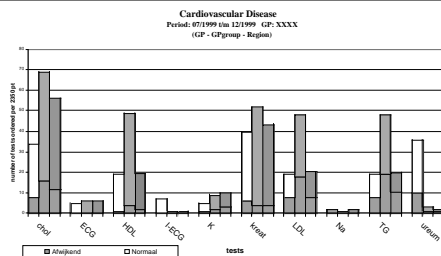
- written graphical comparative feedback
- guidelines dissemination
- structured small group quality improvement meetings
- on 3 clinical problems

➤ Quality meetings chaired by medical coordinators of a diagnostic centre



Clinical problems

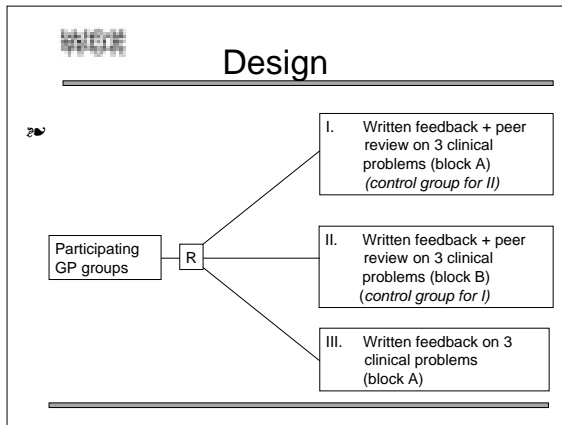
1. Cardiovascular diseases/ Hypertension Cholesterol, subfractions, sodium, serum creatinine, BUN, (exercise-)ECG, potassium	1. COPD/asthma pulmonary function test, immunoglobulin E, chest X-ray, allergic screening test
2. Gastro-enteral complaints SGPT, SGOT, LDH, amylase, glutamyltransferase, bilirubin, alk. phosphatase, ultrasound of hepatobiliary tract	2. General malaise/ fatigue /vague complaints ESR, Hb + -indices, Ht, leucocytes + differential count, TSH, monospot
3. Urogenital complaints Prostate specific amino acid, Ultrasound of kidneys, IVP, renal ultrasound, IVP, double contrast barium enema, sigmoidoscopy	3. Joint degeneration/joint complaints ESR, uric acid, rheumatoid factors (latex fixation test, Rose-Waaler test), X-ray of lumbar spine, -shoulder, -cervical spine, -knee, -hip



Population

➤ Local GP groups in 5 regions in the Netherlands with a diagnostic centre.



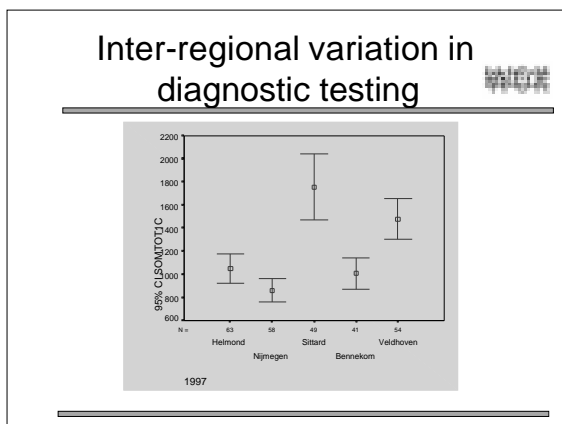
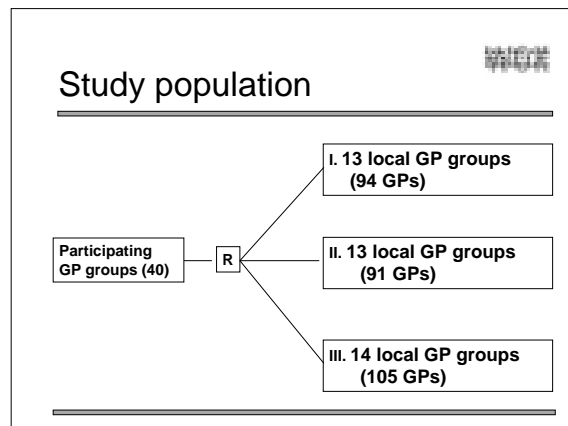


Effect evaluation

- Reduction in numbers of tests
- Reduction in inter-doctor variation
 - per 1/2 year
 - by analysis of covariance

Process evaluation

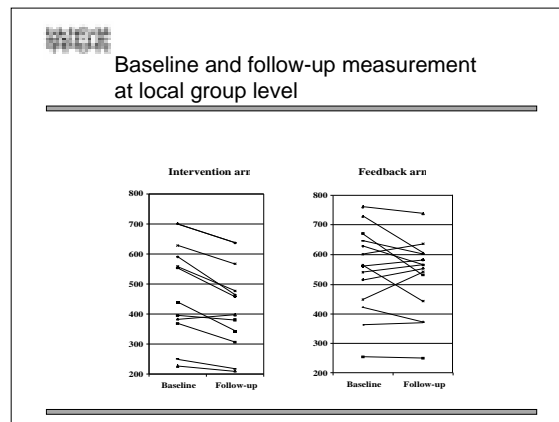
- Attendance and motivation of GPs and medical co-ordinators
- Performance in meetings
- Cost minimisation analysis



	1999	2000
Attendance	0.81 (.75 - .85)	0.73 (.68 - .77)
Appreciation		
- Feedback report	7.51 (7.42-7.60)	7.46 (7.37-7.56)
- Quality meeting	7.55 (7.30-7.74)	7.51 (7.30-7.74)

	Numbers of tests Baseline (SD)	Numbers of tests Follow-up (SD)	Intervention effect	95% CI	P
Intervention arm (I) Control arm (I)	Block A 478 (309) 507 (293)	Block A 422 (234) 503 (281)	- .67	-30 -104	.0004
Intervention arm (II) Control arm (I)	Block B 724 (386) 640 (394)	Block B 664 (357) 624 (356)	- .28	17 -74	.2151

analysis of covariance, adjusted for the numbers of at baseline and the region.



	Intervention arm		Feedback arm		β	p
	Baseline	Follow-up	Baseline	Follow-up		
Total number of tests	478	422	541	535	-.51	.0049
Total costs all tests (€)	1541	1240	1763	1602	-.144	.048
Coefficient of variance	0.65	0.56	0.62	0.58		

analysis of covariance for (cost) effects

	Costs	Cost reductions
Intervention arm	104	301
Feedback arm	19	161

Costs and cost reductions in Euro per GP per 6 months

- ### Implementation lessons
- > Choose a multifaceted strategy
 - > Focus on daily practice problems
 - > GPs positive attitude towards benchmarking
 - > Continuity is important

- ### Implementation lessons II
- > Data collection problematic
 - > Qualitative data necessary
 - > Software program
 - > Diagnostic centre

Conclusion

- This method seems feasible and well accepted by GPs
 - There is a clear improvement in test ordering after 1 year intervention
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The End

