

Abstract 10487

A computer guided consultation in standardizing COPD care: observations in a real life setting

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Abstract Body

RATIONALE: We have previously reported proof of principle and initial real life experience with a comprehensive computer guided consultation (CGC). The CGC ensures an holistic guideline based review which encompasses good practice points such as inhaler technique review and optimization of interventions.

METHODS: 2704 patients on COPD registers across 109 practices attending for COPD consults underwent a guided review which incorporated spirometry. The mean (SD) age was 69.2 (10.8) yrs with 1580 (58%) male. 91.6 % had been smokers and 37.8% were current smokers. Mean (SD) FEV1 was 1.64 (0.67)L, which was 66% predicted with an FEV1/FVC ratio of 58%.

RESULTS: At review 614 (22.8%) did not have COPD based on spirometry and its CGC supported interpretation. Mean lung function of those with confirmed COPD was FEV1 1.49L (61% predicted) and FEV1/FVC ratio 53% (versus 2.1L (83% predicted) and FEV/FVC 75% in those excluded).

Of the 2090 with confirmed COPD, there were some expected findings. At each GOLD severity stage, mean symptoms were worse (GOLD 1: MRC 2.2, CAT 14.1, to GOLD 4 MRC 3.4, CAT 20.5) and increasing use of antibiotics and oral steroids in past year (GOLD 1: antibiotics 1.3, steroids 0.9 to GOLD 4: antibiotics 2.2 and steroids 2.1) and increasing numbers of admissions : 5.8% GOLD 1, 6.5% GOLD 2, 16.0% GOLD 3 and 21.4% GOLD 4).

Inhaler technique was poor in 211/1511 (13.9%) of those tested. Patients with poor technique had a 34% higher admission rate in the prior year. This association was seen at each GOLD severity level, and was independent of current symptom levels or of lung function impairment.

	FEV1 as %predicted	% Admitted in last year	Mean MRC	Mean CAT Score	Steroid courses in last year	Antibiotics in last year
GOLD 1 n=29 (14%)	90.8	6.9%	2.3	13.2	1.29	1.2
GOLD 2 n=117 (55%)	63.5	7.7%	2.6	16.3	1.13	1.5
GOLD 3 n=57 (27%)	40.3	15.8%	3.2	17.8	1.63	2.0
GOLD 4 n=4 (2%)	26.3	n/a	2.5	13.0	0.67	0.5
TOTAL with poor technique n=211 (100%)	60.3	9.5%	2.7	16.3	1.2	1.6
GOLD 1 n=229 (18%)	90.2	3.9%	2.3	15.3	1.00	1.5
GOLD 2 n=707 (54%)	64.5	5.7%	2.5	15.6	0.95	1.5
GOLD 3 n=303 (23%)	41.2	10.9%	3.0	18.0	1.47	1.9
GOLD 4 n=56 (4%)	24.0	14.3%	3.5	20.4	1.85	2.0
TOTALS with good technique n=1300 (100%)	61.2	7.1%	2.6	16.2	1.1	1.6

4 patients with poor and 278 with good technique were not classifiable into a GOLD category with available data.

28 from the 791 current smokers accepted referral for smoking cessation support. 131 of 365 patients eligible for

pulmonary rehabilitation were referred and 17 of 55 patients with hypoxia (defined here as SaO₂<92% on air) had an oxygen assessment arranged. Of those who had an educational package at first visit 61% understood their condition and 39% were given a written “crisis management” plan.

CONCLUSIONS: These data confirm that a standardized review with a computer guided consultation of patients on established disease registers continues to find over 20% are misdiagnosed and that significant improvements can be made to the care package. It is notable that poor inhaler technique may be an independent marker of admission risk.

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