

# Occupational lung disease. Diagnosis and communication – fact or fiction?

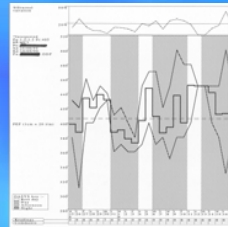
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## Aims

- To investigate levels of agreement between patients and physicians regarding investigations and diagnosis of occupational asthma (OA).

## Methods

- Six expert UK centres in occupational lung disease
- All possible cases of occupational asthma recruited over 6 months
- Semi structured telephone interview
  - within 1 month of enrolment
  - again at 12 months
- All medical records were audited in detail



## Results

- 97 subjects, 75% male, mean age 44 years (range 24-64)
- Table 1 illustrates the diagnosis documented in the medical notes compared to the number of patients who said they had been given a diagnosis of occupational asthma
- Tables 2 & 3 document the results of OASYS II<sup>®</sup> and bronchial challenge testing in relation to a diagnosis of OA.
- Table 4 documents which patients were reported to the SWORD reporting scheme
- Table 5 shows physician documented symptoms compared to self reported symptoms



Table 1 – Physician/Patient Agreement of Diagnosis

Physician Diagnosis	n	Patients believe occupational asthma n (%)
Don't know	33	12 (36%)
Occupational Asthma	42	31 (74%)
RADS	2	1 (50%)
Asthma	12	1 (8%)
COPD	2	0 (0)
Other	3	0 (0)

Location of Study Centres in the UK

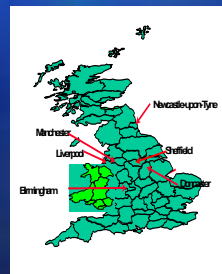


Table 2 – OASYS II<sup>®</sup> Analysis

Physician Diagnosis	n	OASYS II +ve n (%)	OASYS II -ve n (%)	OASYS II not done n (%)
Don't know	33	3 (9%)	12 (36%)	18 (55%)
Occupational Asthma	42	13 (31%)	15 (36%)	14 (33%)
RADS	2	0 (0%)	1 (50%)	1 (50%)
Asthma	12	2 (17%)	5 (41.5%)	5 (41.5%)
COPD	2	1 (50%)	0 (0%)	1 (50%)
Other	3	1 (33.3%)	1 (33.3%)	1 (33.3%)

Table 3 – Non Specific Bronchial Challenge

Physician Diagnosis	n	>20% fall in FEV <sub>1</sub> achieved	<20% fall in FEV <sub>1</sub> achieved	BHR Not carried out
Don't know	33	11 (33%)	9 (27%)	13 (39%)
Occupational Asthma	42	26 (62%)	10 (24%)	5 (12%)
RADS	2	?	?	1 (50%)
Asthma	12	7 (58%)	1 (8%)	4 (34%)
COPD	2	1 (50%)	0	1 (50%)
Other	3	1 (33%)	2 (67%)	0

Table 4 – Reported to SWORD

Physician Diagnosis	n	Reported to SWORD n (%)
Don't know	33	14 (42%)
Occupational Asthma	42	25 (60%)
RADS	2	1 (50%)
Asthma	12	3 (25%)
COPD	2	0 (0%)
Other	3	1 (33.3%)

Table 5 Patient/Physician Agreement - Symptoms

Symptoms	Physician Documented n=95	Patient described at 1 <sup>st</sup> interview n=97	Patient described at 2 <sup>nd</sup> interview n=92
Chest Tightness	54 (57%)	60 (62%)	48 (52%)
Wheeze	67 (71%)	55 (57%)	38 (41%)
Cough	62 (65%)	54 (56%)	48 (52%)
Shortness of Breath	70 (74%)	74 (76%)	45 (49%)
Nasal Symptoms	32 (34%)	30 (31%)	9 (10%)
Ocular Symptoms	20 (21%)	23 (24%)	5 (5%)
Throat Symptoms	11 (12%)	-	-
Nocturnal Wakening	41 (43%)	-	-
Sputum Production	22 (23%)	28 (29%)	19 (21%)
Skin Symptoms	21 (22%)	-	-

## Conclusions

- The diagnostic process for occupational asthma varies widely between centres within the UK
- The presence of a positive OASYS II<sup>®</sup> chart (*work effect index* >2.50) was not consistently used as a definition to make a diagnosis of OA
- Similarly bronchial responsiveness was not always used when making a diagnosis of OA
- Whilst patient physician agreement was reasonable in this study, certain patients may misinterpret information supplied to them, with potential adverse medical, financial and medico legal consequences.
- National diagnostic criteria and standards of care are required for the diagnosis and management occupational asthma