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92. Diagnostic insights and decision making in primary care

P720**The usefulness of point-of-care-testing for C-reactive protein in lower respiratory tract infection/acute cough**

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Background: Respiratory tract infections and acute cough are too frequently treated with antibiotics. Point of care test (POCT) for C-reactive protein (CRP) has in one study been shown to significantly reduce antibiotic prescribing for lower respiratory tract infections (LRTI) without compromising recovery.

Aim: The aim of the study was to evaluate the effect of using the CRP test in general practice patients with LRTI on the prescription of antibiotics, referral to radiography, and the outcome of the patients.

Methods: Open randomised clinical trial; patients with LRTI/acute cough were included. CRP-test was carried out before treatment was decided in the intervention group, with the use of Afinion test system (Axis Shield). Frequency of prescribing antibiotics and referral to radiography were main outcome measures.

Results: Altogether, 179 patients were included, 101 in the intervention group tested by POCT for CRP and 78 in the control group. No significant difference in

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age, gender, co-morbidity, symptoms and chest findings was found between intervention and the control groups. In the intervention group antibiotics prescribing rate was significantly lower, 37.6%, than in the control group, 60.2%, ($p=0.005$). Referral to chest X-ray examination was also significantly lower in the intervention group, 55.4%, than in the control group, 76% ($p<0.01$). Two weeks after start of treatment the recovery rate (% fully or almost recovered) was 92% and 93%, respectively.

Conclusion: CRP testing may reduce unnecessary antibiotic prescribing and referral to radiography in patients with LRTI and acute cough without compromising recovery.

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Influence of different spirometry interpretation algorithms (SIA) on decision making among primary care physicians

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Background: Typically, the only spirometric data required for clinical decision making are the Forced Expiratory Volume in one second (FEV1) and the Forced Vital Capacity (FVC). Limitations of SIA promoted for adoption in primary care have been described (Can Fam Physician October 2011 57: 1148-1152, 1153-1156).

Aims and objectives: This study examines how different SIA may influence decision making among primary care physicians.

Method: Thirty seven primary care physicians were asked to interpret nine spirometry presented twice in random sequence using two different SIA (as stand alone aids) and touch pad technology (remote audience response devices) for anonymous data capture and recording.

Results: We observed important differences in the interpretation of the same spirometry using two different SIA. When the pre-bronchodilator FEV1/FVC ratio was greater than 0.70 one algorithm lead to a normal interpretation; the second SIA prompted a bronchodilator challenge revealing changes in FEV1 that were consistent with asthma. The reliance of changes in FEV1 after bronchodilator challenge to distinguish asthma from COPD in one SIA led to consideration of asthma despite the presence of data that was also consistent with COPD; the latter SIA did not include a logic string leading to a post-bronchodilator FEV1/FVC so a definitive consideration of COPD could not be made. The absence of a post-bronchodilator FEV1/FVC decision node in one algorithm prompted referral for evaluation of low FVC.

Conclusions: This pilot study suggests that different SIA may influence decision making and lead clinicians to interpret the same spirometry data differently.

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Clinical assessment of a portable FEV₁/FEV₆ meter for the detection of airway obstruction

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Objectives: To evaluate the accuracy of the portable Vitalograph-COPD-6 device in the detection of airway obstruction.

Methodology: All participants underwent a measurement of FEV₁, FEV₆ and FEV₁/FEV₆ using the COPD-6 meter, and a conventional spirometry measuring FEV₁, FVC and FEV₁/FVC. Conventional spirometry was performed by highly trained lung function staff, whereas the COPD-6 meter was used by final-year medical students, according to the manufacturer's instructions. Subjects were randomized to determine which measurement was performed first. The FEV₁/FEV₆ ratio that corresponded to the optimal combination of sensitivity and specificity was determined from a ROC curve. Agreement was analyzed by calculating sensitivity, specificity, positive and negative predictive values (PPV and NPV), and the kappa-index.

Results: Test results of 147 subjects were analyzed. The prevalence of obstruction was 42%. The area under the ROC-curve was 0.946. The FEV₁/FEV₆ ratio that corresponded to the optimal combination of sensitivity and specificity was 73%. For this cutoff value sensitivity, specificity, PPV and NPV were 82%, 93%, 90% and 88%, respectively. The kappa-index was 0.76. Lowering the cutoff point to 70% resulted in sensitivity, specificity, PPV and NPV of 65%, 98%, 95% and 79%, respectively. For a FEV₁/FEV₆ cutoff point of 80%, they were 95%, 69%, 69% and 95%, respectively.

Conclusions: The portable Vitalograph-copd-6 device is an accurate device for detection of airway obstruction. Best sensitivity/specificity for FEV₁/FEV₆ was obtained with a fixed cutoff point of 73%. For screening purposes, high sensitivity (95%) can be reached when using an 80% threshold for FEV₁/FEV₆.

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Is the COPD assessment test (CAT) useful in our patients?

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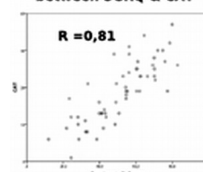
Aim: To determinate the correlation between scores obtained in the quality of life (QL) questionnaires with functional and clinical parameters.

Methods: Prospective study. 56 moderate-severe COPD patients with exacerbating phenotype admitted from 1/02/11 to 30/10/11. Studied items: symptoms, MRC scale, spirometry, BMI, 6MWT, CAT and St.George. Descriptive analysis.

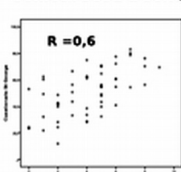
Results: In Table 1 general characteristics are shown. Functional parameters do not correlate with CAT, and have a poor inverse correlation with St.George. BODE, 6 MWT and dyspnoea have a good correlation with both questionnaires. Graphic 1: correlation between BODE and SG, Graphic 2: correlation between CAT and SG, Graphic 3: correlation between scores obtained in CAT and SG about dyspnoea in basal situation.

General characteristics			Correlations		Basal dyspnea: scores in SGRQ & CAT					
			CAT	SGRQ	Disnea	N	CAT	SGRQ	Disnea	SGRQ
Age	69.91 ± 7.7				0	1	12	28	Disnea ≤ 2	16 ± 7
FEV1%	42.9 ± 14	FEV1	-0.20	-0.328	1	14	14 ± 6	39 ± 14	n=31	44 ± 16
FEV1/FVC	44 ± 10	FEV1/FVC	-0.17	-0.27	2	16	17 ± 7	49 ± 16	n=25	22 ± 7
BMI	27.24 ± 3	C	ns	ns	3	7	18 ± 7	50 ± 9	n=25	60 ± 14
Dyspnea	2.46 ± 1.2	6MWT	-0.478	-0.467	4	18	24 ± 7	64 ± 13	p	0.002
6MWT	352 ± 108	BODE	p<0.0001	p<0.0001						<0.0001
BODE	4.11 ± 1									
CAT	18.8 ± 3									
SGRQ	51.25 ± 17									

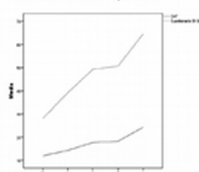
Pearson's correlation between SGRQ & CAT



Pearson's correlation between BODE & SGRQ



Basal dyspnea and scores in SGRQ & CAT



Conclusions: CAT is a simple test with a good correlation with SG. CAT does not correlate with spirometric parameters but does with BODE and 6MWT. SG correlates slightly better than CAT with BODE.

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Prediction of mortality in the Swiss chronic obstructive pulmonary disease (COPD) cohort using the age dyspnoea and airflow obstruction index (ADO)

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Background: COPD is associated with significant mortality, being the fourth leading cause of death worldwide. The Age Dyspnoea and Airflow Obstruction Index (ADO) is a simplified prognostic assessment tool for patients with COPD which has been developed in specialized settings.

Aims: Our objective was to reassess the usefulness of the ADO index as a predictor of mortality in a general practitioners' (GP's) based Swiss COPD cohort.

Methods: 409 patients with presumed GOLD stages I-IV were enrolled by their GP's and data was collected during a total period of 24 months. The observed 2-year risk of all-cause mortality in the cohort was compared to the ADO index predicted 3-year risk of death by performing logistic regression analysis with ADO as independent variable and observed 2-year all-cause mortality as dependent variable.

Results: Complete data could be analyzed in 390 patients (70% male, mean age 68 years). 154 patients (40%) did not have COPD according to spirometric criteria (FEV1/FVC <70%). COPD GOLD stage I was found in 22 (9%) patients, GOLD stage II in 94 (40%), GOLD stage III in 90 (38%) and GOLD stage IV in 30 (13%), respectively. Of the 236 patients with COPD (median ADO score of 4, IQR 3.5), 14 (6%) died during the 2-year follow up period.

There was a significant association between predicted (ADO index) and observed risk of death in the cohort ($p < 0.01$). The odds ratio for death per point increase in the ADO index was 1.65 with a 95% confidence interval from 1.16-2.33.

Conclusion: The ADO index seems to be a significant predictor of 2-year all-cause mortality in patients with COPD treated in primary-care settings.

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Subutilization of COPD guidelines in Mexico

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A recent large COPD survey in Mexico pointed out several facts that suggest a lack of knowledge of the most usual recommendations for diagnosis and COPD treatment. Those included clinical diagnosis without spirometry confirmation, lack of awareness in spite of the presence of risk factors and symptoms and undertreatment of GOLD III and IV patients. Our aim with this study was to explore the degree of knowledge on COPD guidelines.

During a national continuous medical education program on COPD for general practitioners (GP), and before any conference, a 10-item questionnaire was applied to explore the degree of knowledge on COPD guidelines.

Ten Mexican cities were included and 999 GP participated. 72.5% of them said that they had read a COPD guideline and 59.4% answered that they used one in their practice. When asked which guideline(s) they used, we had 86 different responses with GOLD (34.1%) being the most common, followed by GINA (12.8%), Seguro Social (7.7%) and the CAT questionnaire (3.8%). Reasons for not using any guideline included: never read them (41.8%) followed by lack of access to them (18.2%), not enough time to read them (6.0%) and because they are too long (4.6%). When asked about suggestions to draft a better guideline we got 98 different answers; a chapter on treatment was the most common answer (42.8%), followed by chapter on diagnosis (28.7%) and a chapter on COPD symptoms (27.3%). Basically all the suggested topics are already included in the current international guidelines.

COPD guidelines are not widely used by GP in Mexico. Guidelines length, lack of access and physicians work overload are the main barriers to use them. It also seems that those who read them do not fully understand their content and purpose.

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Relationship between quality of life and multidimensional assessment indices in patients with COPD

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Aim: Combining other health measures with FEV1 provides a more complete view of COPD patients' clinical situation. Although some multidimensional assessment indices have been developed recently, there are a few data on their relation with quality of life (QoL). This study was carried out to assess the relationship between QoL and multidimensional assessment indices in COPD patients.

Methods: We recruited 69 stable COPD patients. Quality of life was evaluated using the SGRQ questionnaire. The BODE (Body mass index, airway Obstruction,

tion, Dyspnea, Exercise capacity), DOSE (Dyspnea, airway Obstruction, Smoking status, Exacerbations) and ADO (Age, Dyspnea, airway Obstruction) index calculations were performed. The relation of quality of life with BODE, DOSE and ADO were assessed with Pearson correlation analysis.

Results: The mean age was 58.8±9.1 years and the postbronchodilator FEV1 was 61.1±13.5% predicted. Total SGRQ scores were positively correlated with BODE index ($r = 0.559$, $p = 0.0001$), DOSE index ($r = 0.516$, $p < 0.0001$) and ADO index ($r = 0.438$, $p = 0.0001$). The strongest correlation was evident in activity domain of SGRQ ($r = 0.631$, $p = 0.0001$ for BODE; $r = 0.566$, $p = 0.0001$ for DOSE; and $r = 0.557$, $p = 0.0001$ for ADO).

Conclusion: This study showed a close correlation between quality of life (SGRQ) total and activity scores and multidimensional assessment indices in stable COPD. These scoring systems are useful tools for the assessment of quality of life in COPD, especially predicting in activity status of the patients.

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Knowledge and perceptions of asthma in Zambia: A preliminary report

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Adults and adolescents visiting four clinics, representing different socioeconomic areas in urban Lusaka were surveyed from July to December 2011 with a standardised questionnaire. The research protocol was approved by the National Research Ethics Committee, and all participants gave written informed consent.

Up to January 2012, data from 946 participants were collected. Mean age was 26 yr. old, 64.2% were female, 69.7% were living in high, 21.6% medium, and 8.5% in low-density areas respectively. The educational attainment of participants was 19.5% up to primary, 54.5% up to secondary, and 24.0% higher than secondary. Self-reported asthma symptoms in the last year were: 48.0% cough, 25.7% night-awakening, 19.7% shortness of breath, 15.8% wheezing and 7.7% asthma attack, while 6.3% reported using asthma medication currently. Medications used to alleviate asthma symptoms were mostly oral (antibiotics 40.0%, antihistamines 26.0%, SABA 24.0%, cough mixtures 16.0%, theophyllines 9.5%, and steroids 6.5%), while inhaled medications were seldom used (SABA 13.0%, steroids 7.5%, and LABA none). Many misconceptions on asthma were identified, with 45% reporting that asthma cannot be symptom-free and 59.9% that asthmatics cannot exercise or engage in strenuous exercises, among others. Finally, on asthma perceptions only 47.1% reported that hospitalizations for asthma are preventable, although 68.9% thought asthma symptoms can be prevented with medications. Overall, 64.2% of participants agreed that asthma is a serious health problem in Zambia.

We conclude that knowledge on asthma and its management is poor. Awareness and medical education programmes would improve asthma patients quality of life.

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Reliability, accuracy and concordance of the lung function measured in a primary care setting using COPD6 in early diagnosis of COPD (MARKO study)

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Aim: To evaluate the reliability, accuracy and concordance of the lung function measured at primary care setting using COPD6 in early detection of COPD patients in population of smokers at risk for COPD.

Methods: Recruited subjects from 26 GP clinics were smokers with 20 pack-years of both gender aged 40-65 years of age with no diagnosis of COPD. Subjects were referred to a pulmonologist (history, physical, lung function, bronchodilator test) for diagnosis of COPD and the staging. Measurements of lung function were made 3 times: in the primary care settings using COPD6; at the pulmonology clinic using COPD6 and spirometry 2-4 weeks after the recruitment visit. Spirometry measurements were done according to ERS/ATS guidelines.

Results: The results come from a sample of 219 consecutive subjects (48.5% male), mean (SD) age 52.6 (6.9) yrs with 38.0 (17.4) pack-years of smoking. After the diagnostic workout 25.3% were diagnosed as having COPD (GOLD stage I 18%, GOLD stage II 6.7%, GOLD stage III 0.6%). Concordance correlation coefficients for COPD6 measured FEV1 and FEV6 (FVC) at GP clinics with the measurements done at pulmonology clinic and spirometry were 0.84 and 0.87 for FEV1 and 0.87 and 0.78 for FEV6. Precision was on the comparable level and accuracy was 0.84-0.99. On the other hand agreement between COPD6 and spirometry based diagnosis of COPD was moderate (kappa=0.58) with 25% of COPD patients not identified with COPD6.

Conclusion: Our data shows that even though there is a very good agreement of lung function parameters measured with COPD6 and spirometry a quarter of patients still are not identified using COPD6 at primary care level.

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P730**Subjective (CAT, MMRC) versus objective (PFT, 6MWD, SPO2) assessment in stable COPD patients**

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Background: Chronic obstructive pulmonary disease (COPD) is a prevalent respiratory disease that leads to morbidity and mortality in the world. The excess of investigation has shown that this illness is not confined only to the respiratory system, but it is a systemic inflammatory disease which affects different system of patients.

The aim of this study was to investigate the relationship between subjective tests such as COPD assessment test (CAT) and Modified Medical Research Council (MMRC) scale with objective tests in stable COPD patients.

Methods: We evaluated 60 stable COPD patients in a cross-sectional study, quantifying the following: dyspnea with MMRC scale, lung function parameters, exercise capacity with six-minute walk distance (6MWD), oxygen saturation (SpO₂), BODE index and the number of exacerbation during the last year. Then, the CAT questionnaire was completed by all patients.

Results: There was a significant difference between the CAT score with BODE index ($p < 0.001$). Significant correlation was observed between CAT score and MMRC scale ($p < 0.001$, $r = 0.55$). The negative association was found between CAT with FEV₁%, and SpO₂ ($p < 0.005$, $r = -0.39$ and $p < 0.001$, $r = -0.47$ respectively). There was negative significant correlation between the CAT score and 6MWD ($p < 0.001$, $r = -0.49$). Frequent exacerbation was found in patients with higher CAT scores.

Conclusion: The CAT score is a reliable indicator of airflow obstruction, dyspnea scale, exercise capacity and saturation of arterial oxygen in COPD patients and can be used as a predictor of exacerbation risk in stable COPD.

P731**Real current situation of management and for patient with asthma at community**

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Background and the objective: Despite now we have a remarkable improvement on knowledge of pathophysiology and management for Asthma⁽¹⁾ but the majority of patient do not have opportunities to get them⁽²⁾. So to understand and to have the solutions for this situation we must know the real current situation of management and treatment for this illness in the community. This is also the objective of this study.

Study population and methods: This investigation is carried out on the patient with Asthma in the 8 communes of Can Tho city, which were chosen randomly. With the physician's guidance and explanation the patient complete a questionnaire. The internal consistency will be validated by Cronbach's α coefficients with value > 0.7 . Analysis will be carried out by descriptive statistics.

Results: From data on 197 patients there are 37.9% of them with ACT score < 20 and 57.6% with ACT score < 15 . 42.4% of patients don't know their own disease as asthma. The automedication is very common. Almost of patient do not know the asthma control concept and also think that they will go to the local setting for health care when it is necessary.

Conclusion: The situation of asthma control in the community is so not good. From these data improving the quality of health care at local setting is suitable idea in this background.

ACT: Asthma control test

Reference:

- [1] Global strategy for Asthma management and prevention (GINA) updated 2010.
- [2] PLai CKW, De Guia TS, Kim YY, et al. Asthma control in the Asia-Pacific region: the Asthma Insights and Reality in Asia-Pacific Study. *J Allergy Clin Immunol* 2003;111:263-268.

P732**Validity of spirometry performed in the primary care setting**

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Background: Spirometry is a valuable diagnostic tool in the identification of patients with Chronic Obstructive Pulmonary Disease (COPD) in the community. In the primary care setting, low acceptability of spirometric manoeuvres has been reported which may affect the interpretation of results and clinical decision making. T R Schermer et al had demonstrated in the Netherlands that spirometric indices performed by trained general practice staff were marginally but statistically significantly higher than those measured in pulmonary function laboratories. He concluded laboratory and general practice values should not be used interchangeably.

Aims: To evaluate the validity of spirometric testing performed in the community. **Methods:** Retrospective study of 405 patients found to have abnormal screening spirometry performed in the community. Screening criteria included adults with a history of smoking. This was followed by repeat spirometry in the hospital pulmonary function laboratory. Data was analysed using SPSS.

Results: N=405, mean age 54 years (range 22 to 78), 46% (187) and 41% (165) were current and ex-smoker respectively. 78% (318) were using short-acting beta agonist 60% (242) were already on inhaled steroids. 0.7% (3) were on oral steroids. 82% (331) had obstructive spirometry. Majority (45%) of them had moderate COPD. 32% and 11% were found to have severe and very severe COPD respectively. The Mean FEV₁ in the community (1.52 liters) was slightly higher than the pulmonary function laboratory (1.49 liters). Paired t test study showed the results to be in concordance to the results demonstrated by T R Schermer et al.

Conclusions: This study validates the results published in the Netherlands by T R Schermer et al.

P733**Prevalence of the chronic obstructive pulmonary disease among smokers attending primary health care facilities in Georgia**

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Background: The prevalence of COPD in Georgia is suspected to be high due to high smoking rate, but the real data is unknown.

Aim: The aim of the study was to assess the prevalence of COPD among smokers more than 40 years of age attending primary healthcare (PHC) facilities in Georgia.

Methods: The World Health Organization proposed questionnaire were filled in patients who visited for any reasons PHC in 10 districts of Georgia. The patients were placed into one of four diagnostic categories (mild, moderate, severe, very severe stage).

Results: Out of 4275 patients 2268 (53.5%) were current and past-smokers, among them 2054 male (90.5%) and 214 female (9.5%). Out of those 2268 patients 360 subjects were eligible for data analysis (with chronic dyspnea, cough, and sputum production). 351 patients performed spirometry and 9 patients were excluded because of poor spirometry maneuvers. Of the 351 patients 92 (26.2%) showed airflow limitation.

Most of the subjects (42 patients, 45.6%) had moderate disease (stage II). Thirty patients (32.6%) had an FEV₁ less than 50% predicted (stage III); The stage I of COPD were stated in 13 subjects (14.1%). Seven cases (7.6%) of very severe COPD (stage IV) were diagnosed. Airflow limitation was significantly related to male gender and cumulative pack-years.

Conclusion: It was shown that there are potentially a number of COPD cases that are undiagnosed by GP's in Georgia. Use of spirometry as a routine test for smoker patients will help in early detection and correct diagnosis of COPD, which subsequently will help in implementation of preventive measures.

P734**Asthma control in Tunisia**

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Introduction: Control of asthma is related to recent daily symptoms and exacerbations; it represents the ultimate goal of treatments according to current guidelines. The definition of asthma control was derived from the Global initiative for asthma (GINA): totally controlled or well controlled, or uncontrolled.

In Tunisia, we have no data on the level of asthma control in adult patients.

Aims and objectives: This study was conducted to determine how closely asthma management guidelines are being followed in Tunisia and to identify the factors affecting the control of asthma in our country.

Patients and methods: This study is based on information from 163 adults with asthma in 2010-2011. Sociodemographic data, duration of asthma in years, the severity of asthma based on GINA criteria of severity, etiology and treatment of substance was collected. Regarding control asthma, the questionnaire response of the Asthma Control Test has classified as controlled, well controlled, or uncontrolled.

Results: The mean of age was 49±15 years. Asthma was intermittent in 3.1%, persistent mild in 31.3%, persistent moderate in 51.5% and persistent severe in 14.1%. Treatment as recommended by GINA was applied in 63% of patients. 67.5% of patients were uncontrolled, 26% were well controlled and 6.5% were totally controlled. Factors of uncontrolled asthma were the advanced age ($p < 0.001$) and low Forced Expiratory Volume in one second (FEV₁) ($P < 0.001$).

Conclusion: Despite all efforts through international recommendations and despite the existence of effective therapies against asthma, a significant number of patients with asthma remain uncontrolled in this study. Asthma control in Tunisia is probably as poor as in other areas of the world.

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P735**Quality of care of adult asthma patients in primary health care facilities in Saint-Petersburg, Russia: Trends between 1998 and 2011**

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Background: This study was performed to assess the changes in diagnosis and treatment of asthma (1998-2011) in primary health care facilities in Saint-Petersburg, the second largest city in Russia.

Methods: Case record forms (CRF) of 1248 outpatients 18 to 89 years old with asthma were reviewed in 13 outpatient departments in 7 residential areas in Saint Petersburg in 1998, 2002 and 2005 (253, 579 and 416 respectively) and telephone interviews with 205 asthma outpatients (aged 24 to 90 yrs) was conducted in 2011. Asthma control was assessed by using the Asthma Control Test™ (ACT) in 2011.

Results: During the past 12 month spirometry were performed in 81.3% of patients in 2002 and only 62.1%, 50.7% and 26.8% in 1998, 2005 and 2011 respectively ($p < 0.01$). Inhaled corticosteroids were more often prescribed to persistent asthma patients in 2005 (87.8% vs 79.1%, 63.4%, and 46% in 2011, 2002 and 1998, $p < 0.01$), whereas oral steroids for maintenance therapy were more frequently used in 1998 and 2002 (32% and 28% vs 14.9% and 7.3% in 2005 and 2011, $p < 0.001$). Fixed combination of budesonide/formoterol and fluticasone/salmeterol were not used in 1998 while their prescriptions were increased from 0.9% in 2002 to 34.9% and 45.4% in 2005 and 2011 ($p < 0.001$). Asthma was uncontrolled for 72.2% of patients in 2011.

Conclusion: Quality of diagnostics and treatment of asthma in primary health care is not sufficient and should be improved. Asthma pharmacotherapy has been changed in the past 13 years according to evidence-based guidelines.

P736**Evaluation of a simplified new score of quality of life for the assessment of COPD patients in general medicine – A prospective study**

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Introduction: Chronic obstructive pulmonary disease (COPD) is a common pathology in the general population and therefore in general medicine. However, it remains underdiagnosed and difficult to assess. There are some scores in the literature to scale COPD patients (Saint-Georges (SGRQ), VQ-11 and COPD Assessment Test (CAT)). We therefore wondered if a reliable and easy-to-use score could assist the practitioner in the assessment and adaptation of treatments.

Materials and method: We proposed a score called CED which measures Cough, Expectoration and Dyspnea, on a visual analogue scale. With the help of 13 general practitioners from Picardy between March and September 2011, we conducted a prospective pilot study of patients suspected of COPD ($n = 31$). We collected the CED, SGRQ, CAT and VQ-11 scores of our patients.

Results: The dyspnea criteria of the CED and the SGRQ, which is the gold standard of COPD quality-of-life score, were significantly correlated ($r = 0.390$; $p < 0.05$). The CED score was significantly correlated with the decrease in FEV1 ($r = 0.534$; $p < 0.01$) and with other specific quality-of-life scores such as the SG ($r = 0.484$; $p < 0.01$).

Conclusion: The CED score is significantly correlated to respiratory functional status and the quality of life of the patient. CED score seems to be a good tool in general medicine for the assessment of COPD patients.

P737**A comparison of the RIQ-MON 10 and the SGRQ among patients with COPD in routine care**

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The short 10-Item Respiratory Illness Questionnaire monitoring 10 (RIQ-MON 10) has been developed for the estimation of health-related quality of life in routine primary care.

A cross-sectional, observational study of 31 COPD patients (25 male, 6 female, mean age 64 ± 10.8 years; mean FVC $85.1 \pm 19.7\%$, mean FEV1 $57.8 \pm 21.05\%$) was undertaken. All patients completed 6-min. walk test, the RIQ-MON 10, and the SGRQ. Relationships between parameters of the 6MWT (mean 363 ± 96.9 m), the RIQ-MON 10 (mean 18.7 ± 6.77), the SGRQ (mean 51.8 ± 20), spirometry, and patient characteristics were assessed with Spearman rank correlation coefficients. Twenty patients (64.5%) performed 6MWT ≤ 400 m.

The correlations between the SGRQ Total scores and the RIQ-MON 10 Total scores ($\rho = 0.671$), the 6 min walk distance and FVC ($\rho = 0.471$), and the 6 min walk distance and FEV1 ($\rho = 0.573$) were all significant at the level of 0.01. There

was no correlation between the RIQ-MON 10 Limitations domain and the SGRQ Symptoms.

We proved that RIQ-MON 10, although inferior to the SGRQ, can be useful in routine primary care practice because it provides enough information for just a few minutes.

P738**CURB-65 scoring utilization in predicting mortality of hospitalized patients with AE-COPD**

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AE-COPD is a commonly encountered problem in COPD patients leading to expensive in patient treatment and ICU admissions. It is associated with significant mortality.

Historically CURB-65 score is used to predict mortality in CAP and there is no scoring system to predict the mortality in hospitalized AE-COPD patients. This study is designed to evaluate the validation of CURB-65 score in predicting mortality in AE-COPD hospitalized patients.

This is a retrospective study conducted at JPMC, Karachi, Pakistan. Charts reviewed from July 2010 to June 2011 of hospitalized patients; only AE-COPD included in the study. Patients with other respiratory diseases (asthma, bronchiectasis, ILD and consolidation on chest x-ray or incomplete charts were excluded). CURB-65 was defined as C=Altered level of consciousness (GCS < 13), U = urea > 7 mmol/l, R = Respiratory rate > 35 breaths/min, B= Blood pressure (SBP < 90 mmHg or DBP < 60 mmHg) and age is > 65 years, one point awarded for each. Chi-square test was used to see statistical significance of mortality difference in CURB-65 groups. 200 charts reviewed; 97 incomplete charts; 38 patients with ILD, bronchiectasis, asthma PNA. 65 patients met the inclusion criteria. A direct correlation was observed between mortality and CURB-65; highest mortality noted with CURB-65 3-5. In hospital mortality in different CURB-65 groups were, low risk (score 0-1) 10.0% (2/32), moderate risk score (2) 10.0% (2/12) and high risk (score 3-5) 80.0% (16/21).

The CURB-65 scoring system is effective in predicting mortality in AE-COPD; can be used in AE COPD to stratify patients into different management groups as our conclusion indicates CURB 65 is helpful in assessing severity in AE COPD.

P739**Is there any relationship between the duration to diagnosis of COPD and severity of the disease?**

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The aim of this study was to investigate whether there is a relation between the duration from beginning of symptoms until diagnosis of chronic obstructive pulmonary disease (COPD) and severity of COPD.

Method: One hundred and fifty patients with stable COPD (140 males, 10 females) were included in the study. All the patients had a history of smoking at least 10 pack/years. None of the patient had reversibility.

Results: The mean of age, FEV1 and smoking history was 61 ± 9 years, $45 \pm 16\%$ and 48 ± 21 pack/year, respectively. According to the GOLD criteria the patients had 40,7% moderate, 42% severe and 17,3% very severe COPD. Fifty five (59,8%) patients before, 19 (20,7%) patients during and 18 (19,5%) patients after diagnosis of COPD stopped smoking. The median duration of symptoms was 7.2 ± 6.5 years. The median duration from the beginning of symptoms to diagnosis of COPD was 3.6 ± 4 years. The median duration with the diagnosis of COPD was 4 ± 6.5 years. The severity of the disease has a positive correlation with the duration of symptoms ($r = 0.23$, $p < 0.01$) and the duration to diagnosis of COPD ($r = 0.191$, $p < 0.05$). FEV1 has a negative correlation with duration of symptoms ($r = -0.26$, $p < 0.01$), the duration to diagnosis ($r = -0.16$, $p < 0.05$) and duration of COPD ($r = -0.19$, $p < 0.05$).

Conclusion: The longer duration of symptoms and the duration to diagnosis of COPD the more severe of COPD will develop. It is important to be aware of the symptoms of COPD for early diagnosis.