

TOPICAL ISSUES OF COPD MANAGEMENT IN GEORGIA

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COPD is currently the fourth leading cause of death in the world but it is projected to be 3rd leading cause because of continues increase of its risk factors [2,3]. COPD represents an important public challenge that is both treatable and preventable. COPD is the major cause of chronic morbidity and mortality throughout the world and tobacco smoking is considered as one of the major risk factors.

Despite high population use of tobacco (50% of men and 4% women are daily smokers) and air pollution, COPD and asthma remain quite under-diagnosed in Georgia [1]. A 2008 population-based pilot study by the Global Alliance for Non Communicable Diseases measured five- times higher COPD prevalence in Georgia than official national prevalence measures [1].

With support from the United States Agency for International Development (USAID), the USAID Health Care Improvement Project (HCI) had been collaborated with the Ministry of Labor, Healthcare and Social Affairs of Georgia in 2012-2014 to improve quality of care for high-burden and under-diagnosed diseases, including asthma and chronic obstructive pulmonary disease (COPD).

HCI Project showed that high-impact care services for prevention and treatment of asthma and COPD existed in Georgia but faced many challenges, including lack of supportive national policy and financing mechanisms, low knowledge and competence of providers, lack of essential medications and equipment, and lack of basic monitoring systems to track chronic respiratory disease rates and the quality of asthma and COPD management, resulting in prevalence of outdated, non-evidence-based disease diagnosis, classification, and treatment practices and poor patient outcomes [4].

As known COPD diagnosing and monitoring supposes assessment of following issues:

- Risk factors - especially tobacco smoking impact;
- Disease progression and development of complications;
- Medication therapy and medications for other problems;
- Frequency of COPD attack relievers use;
- History of exacerbations;
- Co-morbid conditions;
- Assessment of vital signs;
- Assessment of spirometric data.

COPD management effective plan includes four components: disease assessment and monitoring; modification of risk factors; stable COPD assessment; management of exacerbation.

Based on routine monitoring results of COPD quality improvement interventions became clear that even during the Project interventions in all regional ambulatory medical facilities and hospitals diagnostics and management of the diseases were significantly improved. Namely, medical records showed that average compliance to COPD management best practice from baseline 20% increase in average by 57% at ambulatory level and by 58% at hospital level and reached accordingly 77% and 78% [5].

The main achievements of the project were:

Improved medical record documentation and improvement in quality of COPD management on both – ambulatory and hospital levels of healthcare.

Significant improvement in evidence based medication treatment practice of COPD at ambulatory as well as hospital level of medical care.

Decreased in non-evidence based medications (metabolics, ephylline, myotropic spasmolytics, vitamins etc.) for COPD treatment.

Basic knowledge and skills of providers improved significantly.

Significant improvement in the view of patient awareness.

The aim of our study was to evaluate the effectiveness (quality, consistency and continuity) of the provided medical care in COPD patients in one of the regions of Georgia. For that purpose, the received results were compared to the data from USAID HCI project in Georgia in 2012-2014.

The specific questions we seek to address with this study were:

What kind of change in the quality of care indicators (COPD) is seen in 5 years from the ending of USAID Healthcare Improvement Project in Georgia;

What is the knowledge, attitude and experience of physicians and patients regarding COPD management/self-management as a chronic disease; what is the patients' experience regarding delivered medical care;

What is the quality of decreasing utilization of non-evidence based services (including medications and diagnostic tests).

Material and methods. In order to evaluate the effectiveness of medical care, 7 rural primary care units and 1 hospital have been selected. All these healthcare providers were beneficiaries of the USAID HCI project (2012-2014), which worked with the Ministry of Labour, Health and Social Affairs and other stakeholders in Georgia to address the quality, consistency, and continuity of medical care; to improve access and usage of evidence-based medical information by physicians; and to enhance the availability of modern evidence-based treatments throughout Georgia.

For evaluating the items mentioned above:

All medical records registered with diagnosis of COPD were reviewed

Doctors participating in COPD management were interviewed

Patients diagnosed with COPD and treated or supervised in ambulatories and hospitals participating in the study were interviewed.

For collecting data, 152 medical records with COPD diagnosis during those periods in the selected clinics were analyzed.

Besides medical record review, the interviews with special questionnaires of those specialists (n=42) who were involved in COPD diagnosis and management have been conducted. The study involved also interviews of the patients (n=83) who were under the supervision or treated for COPD during this period. So, information was gathered from different sources with standardized questionnaires: providers, patients and medical record reviews. Research period was defined from March 2017 till March 2019 (distribution of healthcare facilities are shown in the table 1).

Table 1. The number of reviewed medical records, interviewed patients and physicians

	records	Patients	Physicians
Ambulatories/Primary care units	89	47	24
Hospitals	63	36	18
Total number	152	83	42

Table 2. Indicators of hospital management of COPD: Percent of medical record of patients discharged for COPD with documented evidence-based best practices

	Hospitals*	2019 y., %	2015 y., %**
Fully completed standard discharge form	51	81	75
Prescription of COPD controller medication at discharge	54	86	75
Bronchodilator prescription at discharge	49	78	75
Smoking status assessment and intervention	63	100	100
Spirometry results recorded	13	21	25
Severity of respiratory status recorded	63	100	100
Oxygen given if indicated	63	100	100
Pulsoxymetry measured at admission	63	100	100
Vital signs (heart rate, blood pressure, respiratory rate, temp.) recorded at admission	63	100	100

* - total number of patients – 63; ** - this percentage is calculated from the total number of medical records reviewed n=340

All formative and evaluative assessment components were non-invasive, consisting of anonymous written questionnaires by physicians and patients and medical record reviews without any identification of individual provider, physician or patient information. Interview was conducted after receiving preliminary written consent from the respondent.

This study protocol is approved by an Ethical Committee Review Board at ATSU.

The main points to evaluate effectiveness of COPD ambulatory management were based on the following: updated code of classification at the last visit, documentation of all vital signs at last visit, spirometry documentation at last visit, Tobacco status and tobacco cessation counseling documentation, Prescription of LAMA, inhaled or nebulized anticholinergic, steroids at last visit, No prescription of non-evidence based medications at last visit, assessment of COPD acuteness by valid questioner (CAT), the number of hospitalizations during last 6 month. The periods of recurrences during the last 6 months.

The main points to evaluate effectiveness of COPD hospital management were: documentation of vital signs and pulsoxymetry at admission, prescribing oral steroid at any time of hospitalization, repeated nebulized therapy during first 2 days of hospitalization, prescription of only evidence based medication therapy, documentation of spirometry in any place of medical record, assessment of smoking status and counseling, prescription of bronchodilators at discharge, prescription of medications for exacerbation prevention at discharge, fully completed standard discharge form.

The main points used for the interviewing patients were based on the following items: last visit a healthcare provider for COPD, number of COPD exacerbation during last 6 month, medications used for COPD treatment, medications used for COPD symptoms (SOB, cough), medications used to prevent COPD symptoms (SOB, chest tightness), in case

of inhalers—are they taught proper inhaler usage technique, tobacco cessation counseling by doctor, quality of modification of lifestyle to achieve better COPD control after doctor's advice.

Physicians were interviewed with the questionnaire from the HCI Healthcare improvement Project in Georgia, which was the part of a big questionnaire used for evaluation of clinical medical services. The data was statistically evaluated by SPSS 20.0.

Results and discussion. With our study we tried to check the progress sustainability of the results of the HCI project.

We reviewed 152 medical records, interviewed 42 physicians and 83 patients. As Table 2 shows the effectiveness of COPD management is still in a good quality according to the medical record documentation in hospitals: standard discharge forms are fully completed in 81% of hospitals which is with 6% more compared to the 2015 year ($p<0.05$), prescription of COPD controller medication is 86% and bronchodilator prescription at discharge -78% (greater with 11% ($p<0.01$) and 3% ($p<0.01$) compared to previous data). All the following measurements - assessment and intervention smoking status, severity of respiratory status, oxygenation - in case of indication, vital signs (heart rate, blood pressure, respiratory rate, temp.) recorded at admission – were done and recorded accordingly in 100% of cases. So, improvement tendency is obvious in all aspects of treatment/management but spirometry results recorded - 21%, that is 4% less ($p<0.01$) compared to the HCI project results.

Table 3 shows the effectiveness of COPD management according to the medical record documentation in primary care units/ambulatories: only issue what was identified in this field was „smoking status assessed and counseling/ treatment provided” – in 79.8% of total number of patients, which is 8% less ($p<0.05$) compared to the 2015 year. There were no other statistically significant differences.

Table 3. Indicators in ambulatory management of COPD:
Percent of medical records of patients seen for COPD with documented best practices

	Primary care unit/ambulatory*	2019 %	2015 ** %
Smoking status assessed and counseling/ treatment provided	71	79.7	88
Triggers (pets, dust, smokers, etc.) assessed and modification plan recorded	89	100	100
Risk-factors (body mass index, diet) assessed and modification plan recorded	89	100	100
Treatment plan adjusted to severity/control status	89	100	100
Status of COPD control is recorded	89	100	100
Classification/severity status documented	89	100	100

*Total Number of patients – 89. **this percentage is calculated from the total number of medical records reviewed n=340

Table 4. Results received from the interviewing of patients

	Ambulatories/Primary care units, n=47	%	Hospitals, n=36	%
Medications used during COPD treatment, symptoms and prevention	47	100	36	100
Guidance for proper technique of inhalers use	28	59.6	26	72.2
Counseling for tobacco cessation/healthy lifestyle	35	74.5	23	63.9

Patient interviews consisted of list of questions, which were summarized into the 3 main points: medications used during COPD treatment, symptoms and prevention; guidance for proper technique of inhalers use and counseling for tobacco cessation. The results showed that all patients are aware of the medications they use during different stages of their disease, though there is a gap in the proper usage of the inhalers - only 59% of the ambulatory patients and 72% of hospitals' patients use the inhalers with proper technique (table 4). As tobacco smoking is one of the main predisposition factor for COPD, the counseling of population (especially COPD patients) plays great role in the prevention/management of the disease. Our data shows that 74.5% and 63.9% of the patients (primary care/ambulatory and hospitals, accordingly) answered, that they were appropriately guided by the doctor during each visit. Remaining responds were either negative, or the provided guidance was considered as non-effective (non-completed, rare, nonsystematic, insufficient, etc).

Interviewing of the physicians revealed that healthcare practitioners are very well-trained and confident in the diagnosing, management and treatment of COPD with guidelines in both types of providers. Primary care physicians/family doctors consider their guidance absolutely appropriate in terms of use of inhalation techniques and smoking cessation promotion. At the same time, physicians from hospitals think that their promotion is not sufficient, as well as their role is very low in the follow-up after hospitalization for an acute exacerbation of COPD.

Study results proved effectiveness of quality improvement interventions in COPD diagnosing and management in Project supported ambulatory and hospital facilities.

Conclusion. Based on our data the sustainability in the treatment and management of COPD is still in progress. Two main areas need to be paid special attention: patient consultation/education and timely diagnostics of the disease: Patient interview results showed the tendency of decrease in patient consultation/education in terms of quantity as well as quality. This indicates the strong need of interventions of patient education and inform-

ability. Special attention should be paid to the patients' consultation on tobacco cessation on every visit with each smoker.

The physicians interviewing revealed the problem of COPD diagnostics related to the 2 possible issues: firstly, either not all the ambulatories are equipped with spirometers or there is a lack of trained cadre in this area, second reason could be related to the financial issues, as this examination is not covered by universal health care state program.

In the course of interviews, physicians have expressed their concerns about the limited time in preventing the patient's education. They think that it is extremely important to train not only family doctors but also nurses to be able to consult patients (short-term (3-5 minute)) about the interventions for tobacco cessation.

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SUMMARY

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Chronic obstructive pulmonary disease (COPD) is the major cause of chronic morbidity and mortality throughout the world. USAID Health Care Improvement Project (HCI) had collaborated with the Ministry of Labor, Healthcare and Social Affairs of Georgia in 2012-2014 to improve quality of care for high-burden and under-diagnosed diseases, including asthma and COPD.

The Aim of the study was to evaluate the effectiveness (quality, consistency and continuity) of medical care in COPD patients in one of the regions of Georgia after 5 years from the ending of the project. The received results of our research were compared to the data from USAID HCI Project.

In order to evaluate the effectiveness of medical care, 7 rural primary care units and 1 hospital have been selected. Information was gathered with standardized questionnaires: from providers, patients and medical records: 42 physicians and 83 patients were interviewed, 152 medical records were reviewed. Research period was defined from March 2017 till March 2019. Research protocol is approved by an Ethical Committee Review Board at ATSU.

All indicators showing the quality and effectiveness of COPD management (prescription of COPD controller medications, bronchodilators, documented procedures, etc) are improved. Improvement tendency is obvious in all aspects of treatment/management, except spirometry results recorded, which is 4% less compared to the project results. Documentation from the primary care units showed decreased indicator of counseling provided for smoking cessation by 9%.

Based on our data the sustainability in the treatment and management of COPD is still in progress. Two main areas need to be paid special attention to: patient consultation/education and timely diagnosis of the disease.

Keywords: COPD, Risk factors, Tobacco smoking, bronchodilators.

РЕЗЮМЕ

АКТУАЛЬНЫЕ ВОПРОСЫ ЛЕЧЕНИЯ ХРОНИЧЕСКИХ ЗАБОЛЕВАНИЙ ЛЕГКИХ В ГРУЗИИ

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Хроническая обструктивная болезнь легких (ХОБЛ) является одной из ведущих причин хронических заболеваний и смертности в мире. В 2012-2014 гг. в Грузии USAID осуществил проект совместно с Министерством по делам вынужденно перемещенных лиц из оккупированных территорий, труда, здравоохранения и социальной защиты (USAID Health Care Improvement Project - HCI) по улучшению качества медицинской помощи при заболеваниях высокого риска и менее диагностируемых, таких как астма и ХОБЛ.

Цель исследования - оценка эффективности медицинских услуг, оказанных больным хронической обструктивной болезнью легких - качество, постоянство и непрерывность наблюдения, в одном из регионов Грузии (Имерети); полученные результаты сопоставить с данными проекта, проведенного в Грузии в 2012-2014 гг. (USAID HCI; ASSIST).

Для оценки медицинских услуг (наблюдение) отобраны 7 учреждений первичной медицинской помощи (поликлиники) и 1 больница в регионе Имерети. Информация собрана с помощью стандартизированной анкеты: рассмотрены 152 истории болезни пациентов с ХОБЛ. Опрошено 42 врача и 83 пациента, зарегистрированные с диагнозом пневмония.

Исследование проводилось с марта 2017 г. по март 2019 г. Протокол исследования одобрен Комиссией по этике Государственного университета им. Акакия Церетели (Протокол №2, от 1 марта 2017 г.)

Результаты проведенного исследования выявили, что эффективность лечения ХОБЛ улучшена по всем показателям. Тенденция к улучшению очевидна во всех аспектах лечения, кроме использования спирометрии в качестве диагностического метода исследования - этот показатель понизился на 4%.

Анализ полученных результатов показал, что устойчивость лечения и управления ХОБЛ еще не полностью усовершенствованы. Для достижения прогресса в этой области необходимо сосредоточить внимание на информировании пациентов и своевременной диагностике заболевания.

რეზიუმე

ფილტვის ქრონიკული დაავადებების მართვის გამოწვევები საქართველოში

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ფილტვის ქრონიკული ობსტრუქციული დაავადება (ფკოლ) ქრონიკული ავადობისა და სიკვდილიანობის

ერთ-ერთი ძირითადი მიზეზია მსოფლიოში. 2012-2014წწ. საქართველოში USAID-ის მიერ საქართველოს შრომის, ჯანმრთელობისა და სოციალური დაცვის სამინისტროსთან ერთად განხორციელდა პროექტი (USAID Health Care Improvement Project - HCI), რომლის მიზანაც იყო სამედიცინო მომსახურების ხარისხის გაუმჯობესება მაღალი რისკისა და ნაკლებად დიაგნოსტირებული დაავადებების შემთხვევაში, როგორცაა ასთმა და ფქოლ.

კვლევის მიზანს წარმოადგენდა ფილტვის ქრონიკული ობსტრუქციული დაავადებით ავადმყოფების სამედიცინო მომსახურების ეფექტურობის (ხარისხი, მეთვალყურეობის მუდმივობა და უწყვეტობა) შეფასება საქართველოს ერთ-ერთ რეგიონში (იმერეთი). მიღებული შედეგები შედარებული იყო 2012-2014 წწ. საქართველოში განხორციელებული პროექტის (USAID HCI; ASSIST) მონაცემებთან.

სამედიცინო მომსახურების (მეთვალყურეობის) შეფასების მიზნით შერჩეული იყო იმერეთის რეგიონის პირველადი ჯანდაცვის 7 ობიექტი (ამბულატორია) და 1 ჰოსპიტალი. ინფორმაცია სხვადასხვა წყაროდან შეგროვდა სტანდარტიზებული კითხვარის მეშვე-

ობით: განხილულია 152 სამედიცინო ისტორია, სადაც რეგისტრირებული იყო ფქოლ; გამოკითხულია აღნიშნული დაავადების მართვაში ჩართული 42 ექიმი და ზემოაღნიშნული დაწესებულებებში რეგისტრირებული 83 პაციენტი ფქოლ-ით. კვლევა მიმდინარეობდა 2017 წლის მარტიდან 2019 წლის მარტამდე. კვლევის პროტოკოლი დამტკიცებულია აკაკი წერეთლის სახელმწიფო უნივერსიტეტის ეთიკის კომისიის მიერ (ოქმი №2, 1 მარტი 2017წ.) კვლევის შედეგებმა გამოავლინა, რომ ფქოლ-ის მართვის ეფექტურობა ყველა მანქანების მიხედვით გაუმჯობესდა, გარდა სპირომეტრიისა, რომლის მანქანებელი 4%-ით შემცირდა.

მიღებული მონაცემების ანალიზის შედეგად გამოვლინდა, რომ ფქოლ-ის მკურნალობისა და მართვის მდგრადობა ჯერ ისევ არ არის ბოლომდე მიღწეული. პროგრესის მისაღწევად ამ სფეროში ყურადღება უნდა გამახვილდეს პაციენტთა კონსულტირება/განათლებაზე. შედეგების შემდგომი გაუმჯობესების მიზნით და უფრო მაღალი პროგრესის მისაღწევად აუცილებელია განსაკუთრებული ყურადღება მიექცეს პაციენტთა კონსულტირება/განათლებას და დაავადების დროულად დიაგნოსტირებას.

ПРАВО НА ЭВТАНАЗИЮ КАК ПРАВО ЧЕЛОВЕКА ЧЕТВЕРТОГО ПОКОЛЕНИЯ

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Фундаментальным правом человека, занимающим центральное место в системе неимущественных прав, направленных на обеспечение естественного существования физического лица, является право человека на жизнь. На сегодняшний день право на жизнь признается одним из приоритетных прав человека во всем мире, однако необходим пересмотр содержания права на жизнь в контексте его соотношения с правом человека на смерть.

Если предположить, что трансформационные процессы мирового сообщества развиваются таким образом, что право на смерть путем эвтаназии станет неотчуждаемым, основополагающим правом каждого человека, то следующий вопрос, который предстанет перед человечеством – это необходимость его урегулирования социальными регуляторами, определения объективного и субъективного круга, процедуры и порядка проведения, классификации видов, так как одной из предпосылок защищенности основных прав человека является закрепление этих прав государством в юридических нормах, т.е. выражение права на смерть путем эвтаназии понятием субъективного юридического права, в таком случае право на смерть путем эвтаназии характеризует возможности субъекта эвтаназии, осуществление которых зависит от его сознательного выбора и решения.

Важное значение имеет социально-правовое регулирование института эвтаназии, который следует формировать в пределах медицинского права, как институт права, т.е. промежуточный элемент между нормой и отраслью, который

является совокупностью специализированных, дифференцированных правовых норм, направленных на урегулирование общественных отношений, возникающих при лишении жизни больного с целью облегчения его страданий и характеризуется собственной структурой, субъективным составом, терминологией и особыми методами правового регулирования.

Право на жизнь – это личное неимущественное право человека, которое заключается в предоставлении возможности самостоятельно решать все основные вопросы принадлежащей ему жизни. Если рассматривать эвтаназию, как право на смерть, то можно судить о том, что она имеет такое же происхождение, как и право на жизнь, или является частью права на жизнь, поскольку последнее включает в себя право распоряжаться своей жизнью. Право на жизнь прошло долгий и сложный путь признания на международном и национальном уровнях, а право на смерть не рассматривалось в рамках философско-правовой мысли, правовой доктрины и не являлось предметом закрепления в законодательстве [1]. Вопрос законодательного закрепления и легализации института эвтаназии как в материальном, так процессуальном аспектах во многих странах мира остается нерешенным. Легализация этого института вызывает правовые дискуссии среди ученых в отрасли медицины, философии и права. Актуальность и необходимость обращения и акцентирования внимания общества и специалистов из сферы права на этот вопрос ствится, в первую очередь, потому что современная