1st IPCRG South Asian Scientific Conference

Implementation Science / Service Development Abstracts

IS-01. 30 Seconds to Save a Life

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Brief Outline of Context:

Tobacco smoking is the single most preventable cause of death, resulting in an estimated 6 million premature deaths globally per year. Stopping smoking can reduce risk of premature death and improve current and future health.

Brief outline of what change you planned to make:

Very Brief Advice (VBA) is a proven clinical intervention, which identifies smokers, advises them on the best method of quitting and supports subsequent quit attempts. VBA comprises three elements: ASK, ADVISE, ACT and is designed to be used opportunistically to patients in less than 30 seconds by health care workers in almost any situation with a smoker.

We report an ongoing implementation study to i) adapt the existing VBA intervention to ensure it fits the context of four LMICs ii) provide training for healthcare workers in the knowledge and skills to deliver VBA iii) evaluate the training programme iv) measure self-reported clinical impact of VBA training.

Assessment of existing situation and analysis of its causes:

Engagement: Stakeholders and country leads review the standard UK model for the delivery of VBA on smoking, contribute to adaptations and explore opportunities for scale-up of training.

Strategy: The adapted VBA model is developed and translated into local languages for local implementation by local health care workers. On completion of training they take *every opportunity* in their clinical/professional practice to offer VBA on smoking to patients/clients.

Outcomes: Participant i) recruitment and retention ii) knowledge acquisition iii) training evaluation iv) quantification of VBA delivery v) acceptability, practicability and feasibility of delivering VBA vi) cost analysis of implementation

Conclusion:

VBA requires adaptation before implementation

Effects of change:

VBA prompts quit attempts

Lessons learnt:

Concern about effective delivery of VBA training by English speakers to health care workers via a translator and long-term sustainability were addressed by revising implementation methods, adapting the VBA training resources, to enable local VBA trainers to deliver VBA training to health care workers in the local language.

Message for others:

Effective implementation requires significant stakeholder engagement

Declaration of Interest:

Conflict of Interest statement: Andy McEwen

Andy McEwen has received travel funding, honorariums and consultancy payments from manufacturers of smoking cessation products (Pfizer Ltd, Novartis UK and GSK Consumer Healthcare Ltd) and hospitality from North51 who provide online and database services. He also receives payment for providing training to smoking cessation specialists and receives royalties from books on smoking cessation.

Andy is a trustee and board member of the charity Action on Smoking and Health (ASH) and an associate member of the New Nicotine Alliance (NNA), a charity that works to foster greater understanding of safer nicotine products and technologies.

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IS-02. Asthma-COPD Educational Outreach to GPs in Bangladesh

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Brief Outline of Context:

Aim : ***IMPROVING THE CARE OF ASTHMA-COPD PATIENTS IN A RESOURCE-POOR COUNTRY***

Introduction: Asthma and COPD are two common long-standing respiratory conditions in Bangladesh. Both of the diseases are well treatable and manageable. Burden of asthma and COPD was measured in Bangladesh in 1999, 2006 and 2009 (Asthma by NAPS 1999 & 2009 and COPD BOLD-BD 2006). Prevalence of Asthma is around 6.7 and COPD Prevalence in >40 years population was 21.24% (95% CI 20.77 - 21.78). The total number of COPD patients in Bangladesh is assumed to be 5947200. In 1999 the prevalence of asthma (wheeze in the last 12 months) was 6.9% (95% CI: 6.2-7.6) whereas in 2010 it is 6.96% (95% CI: 6.90-7.04). The overall prevalence of COPD in total population of Bangladesh is estimated to be 4.32%.

Brief outline of what change you planned to make:

Methodology: Considering the above burden and Government's preoccupation with Pulmonary Tuberculosis and other infectious disease as well as the low priority of asthma and COPD, Bangladesh Primary Care Respiratory Society (BPCRS) developed a program known as "**Better Breathing Bangladesh (BBB)**" along with International Primary Care Respiratory Group(IPCRG) and Bangladesh Lung Foundation and Education for Health UK. The project was recognized by WHO Global Alliance against Chronic Respiratory Diseases (WHO-GARD) as a demonstration project in 2009. The **E learning course on Asthma and COPD** is done through International Centre for Diarrheal Disease Research, Bangladesh (ICDDB R). Through this course the GPs are taught online, outreach camps, clinical rotations, personal contact sessions, as well as providing evidence based care administered at all levels.

Assessment of existing situation and analysis of its causes:

Assessment process is going on

Conclusion:

Conclusions: Health professionals working in the community level should be empowered to provide evidence based care for Asthma and COPD. Improving health literacy is one most important element of the program. Resource building in the most efficient manner is being done at the GP level to combat COPD and Asthma in Bangladesh.

Effects of change:

Better respiratory care in community level

Lessons learnt:

structured care of respiratory disease can alter the total scenario of burden

Message for others:

We like to share and exchange experiences

Declaration of Interest:

Nothing

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IS-03. Blended e-learning approach for improving Asthma care in Bangladesh

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Brief Outline of Context:

Asthma is a public health burden in Bangladesh as evident from the prevalence of Asthma (wheeze in the last 12 months) in 1999 [6.9% (95% CI: 6.2-7.6)] and in 2010 [6.96% (95% CI: 6.90-7.04)]. Evidence-based asthma care can make a visible change but there is lack of awareness among clinicians, public and policymakers regarding prevention, diagnosis and treatment of Asthma. In June 2009, WHO-GARD approved the demonstration project 'Better Breathing Bangladesh (BBB)' to develop a better surveillance, prevention and control of chronic respiratory diseases by face to face training and providing the service of skilled primary health care professionals which proved to a success with limited reach. In the above context, the blended e-learning approach on Asthma was piloted to reach to the large number of physicians.

Brief outline of what change you planned to make:

In 2015, icddr,b, IPCRG-BD (currently BPCRS) and Education for Health (UK) jointly initiated a six-month long training course for the physicians where theories were taught online, clinical and practical sessions were conducted face to face. A pre-post changes in their knowledge and confidence in key attributes of the clinical guidelines including patient education were measured using a Likert scale.

Conclusion:

To combat asthma burden in Bangladesh practicing physicians should be helped with awareness and skills building intervention.

Effects of change:

As of April 2017, 145 physicians completed the training on Asthma module. Of them, 123 trainees completed a questionnaire before the start of training and 73 completed the same questionnaire immediately after the end of course. The results showed that trainees' confidence levels related to knowledge of Asthma and its management increased with specific reference to the asthma clinical guidelines. Confidence in the use of patient education/communication strategies improved as well as the use of pulmonary function tests and the interpretation of test results.

Lessons learnt:

Nurses and other health workers also should be included.

Declaration of Interest:

No conflict of Interest.

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IS-04. Communicating research evidence to end-users - a systematic approach to knowledge creation

Charlotte Poot[1], Rianne van der Kleij[1], Evelyn Brakema[2], Debbie Vermond[1], Sian Williams[3], Liza Cragg[3], Jos van den Broek[4], Niels Chavannes[1]
[1]Leiden University Medical Center, [2]Leiden University Medical Centre, [3]International Primary Care Respiratory Group, [4]Leiden University

Brief Outline of Context:

Knowledge creation, the generation of tools and key messages tailored towards the needs of the audience, forms an integral part of the knowledge-to-action framework. This framework is aimed at bridging the gap between research and evidence-informed decision making. Although principles of science communication, data visualisation and user-centred design largely impact the effectiveness of communicating research evidence to end-users, their role in knowledge creation is still limited.

Brief outline of what change you planned to make:

This study aims to provide researchers a systematic approach on how the process of knowledge creation can be put into practice.

Assessment of existing situation and analysis of its causes:

A systematic two-phased approach towards knowledge creation was formulated and executed through a case study. First, during a preparation phase main objectives were formulated and the target audience was defined. Subsequently, a developmental phase facilitated how the content was ´said´ (language) and how it was communicated (channel). This developmental phase proceeded via two intertwined pathways: 1) a translational cycle, in which core components on the language used and the presentation were incorporated and 2) a design cycle which incorporated core components on navigation, organisation, design aesthetics and semiotics. The entire approach was demonstrated by the FRESH AIR study, an implementation science project targeting chronic lung diseases in diverse low-resource settings. The FRESH AIR case study illustrated how the phases in this systematic approach can be operationalised and how created knowledge can be delivered to the end-user.

Conclusion:

The proposed approach offers researchers a systematic, practical and easy-to-implement tool to facilitate effective knowledge creation towards end-users, such as policy-makers and healthcare professionals. Through the integration of core components of knowledge creation, evidence-informed decision making will ultimately be optimised.

Declaration of Interest:

None

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IS-05. Development and implementation of lung health awareness programme for community health workers in the rural district Masindi of Uganda

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Brief Outline of Context:

Chronic lung disease is common but under-reported in sub-Saharan Africa. Following a survey in rural Uganda which found 16% of the adult population had chronic obstructive pulmonary disease (COPD), we developed a tailored lung health awareness programme about the local risk factors for COPD and common chronic lung diseases. This project was a two-year train-the-trainer programme conducted by healthcare workers (HCWs) and community health workers (CHWs) in Masindi district of Uganda.

Brief outline of what change you planned to make:

Working with HCWs who conducted the FRESH AIR Uganda survey, and therefore had a commitment to the project aims, we taught HCWs how to teach CHWs about lung health and how they could teach their communities. We held a series of meetings with stakeholders to develop the project strategy and contents of the education materials. Draft education materials were shared with senior clinicians, administrators including the secretary for Health and District Health Officer in Masindi, through all grades of clinicians to CHWs and villagers. Incorporating all feedback, we designed a training programme with HCWs who were taught how to train other HCWs to deliver the programme to CHWs. The CHWs then taught people in their villages. Radio programmes and radio hits were run for three consecutive months on the local radio station in three languages.

Assessment of existing situation and analysis of its causes:

Education materials for use in training HCWs and CHWs using desk-aid flip-over charts and posters have been designed and approved by the Ministry of Health. To date, we have trained 12 HCWs who then trained 47 HCWs and 159 CHWs. We tested their knowledge with questionnaires. Approximately 15,000 people have received the messages directly and thousands more through mass media messages.

Conclusion:

Using the local system, we developed an effective lung health awareness programme for CHWs to teach the communities about the damaging effects of biomass smoke and tobacco smoking.

Declaration of Interest:

There is no conflict of interest

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IS-06. Doxofylline in management of Asthma in Bangladesh

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Brief Outline of Context:

Asthma affects an estimated 300 million individuals worldwide. In Bangladesh, the condition is also threatening. The economic burden of our country is one of the underlying causes in treating Asthma. According to Bangladesh Lung Foundation, 6.8% of the total populations are suffering from Asthma.

Whilst the inhaled route is the first line administration method in the management of asthma, it is well documented that patients can have problems adopting the correct inhaler technique and thus receiving adequate medication. Many of them treated Inhaler as a risky treatment approach. This applies equally to metered dose inhalers and dry powder inhalers and leads to poor disease control and increased healthcare costs.

Brief outline of what change you planned to make:

Asthma management in Bangladesh should be cost effective regarding the socioeconomic condition. People have to buy the effective drug with cheaper price. Doxofylline, an oral methylxanthine derivative, has recently drawn attention because of its better safety profile and similar efficacy indicated for asthma

Assessment of existing situation and analysis of its causes:

Although GINA Guidelines available for various step wise approach in Asthma management, sometimes it is hard for physicians of Bangladesh to offer the ideal treatment according to guidelines. This approach sometimes remodeled for patients' financial eligibility as well as convenience. Doxofylline is a cost effective and reliable treatment options in treating Asthma.

Theophylline is another xanthine derivative available for treating asthma patients. Undoubtedly, it is most widely prescribed medication but beside it's desired effect, having affinity towards Adenosine Receptors (both A1 & A2). Thus it causes Cardiovascular, Central Nervous system, Renal & Gastro Intestinal side effects. Physicians of Bangladesh are very much aware of its side effects and hence try alternative approach though having very good efficacy of Theophylline.

Conclusion:

Due to its chronic nature, asthma results in a huge economic burden on families and health system. As Bangladesh is Low Middle Income country, a very minority of the people leads an elegant life and bears the expensive treatments. Doxofylline is a better option for mass people in case of cost effectiveness and safety parameters. People can easily afford this instead of other costly options.

Effects of change:

Better care of Asthma and COPD with economic liberty

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IS-07. Educating primary care physicians on PAL guidelines; outcomes of a multi center training programme in Sri Lanka

Savithri W Wimalasekera[1], Seneth Samaranayake[2]
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Aim:

Provision of good respiratory care at the primary care level is hampered by the lack of awareness of available guidelines on diagnosis and management of respiratory disease. It is further hampered by the limited availability of spirometry testing facilities and the high cost per test. The “Practical Approach to Lung health” (PAL) guidelines were developed by respiratory physicians and the Ministry of Health to facilitate uniformity in delivery of respiratory care. However, dissemination of this resource to the doctors was hampered by non availability of funds.

The objectives of the program were to train primary care physicians on the use of PAL guidelines in diagnosis and management of respiratory disease; and to create awareness on the importance of screening respiratory patients by spirometry especially in diagnosis of COPD and asthma.

Method:

Medical officers working in 6 cities participated in the training workshops. The workshops trained on use of PAL and the clinical use of spirometry. A pre test assessed the base line knowledge, and was followed by a post test. Data of participants were obtained by a questionnaire and a feedback form assessed the quality of training.

Results:

Amongst participants (n = 226), 64 (29%) were engaged in full time primary care, and 154 (71 %) were engaged in part time primary care. The mean post test score for the 1st training (68.47 ± 5.6 SD) was significantly higher than the mean pre test score (55.68 ±6.8 SD) ($p < 0.05$). The mean post test score for the 2nd training (76.6 ± 11.7 SD) was significantly higher than the mean pre test score (68.3 ± 14.1 SD) ($p < 0.05$).

Conclusion:

Achieved outcomes were motivation to implement PAL, and referral of patients for spirometry to laboratories close to the practice area. The E Quality programme provided the much needed knowledge on the implementation of a common protocol to deliver better respiratory care.

References & Clinical Trial Registry Information

Ministry of Health, http://www.nptccd.health.gov.lk/uploaded/documents/PAL%20Guidelines.pdf

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IS-08. How to Improve the Diagnosis of Respiratory Diseases in Primary Care Doctors

Ananda Perera
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Brief Outline of Context:

Diagnostic errors, inappropriate referrals, investigations and prescriptions are common in primary care (1,2,3)

Brief outline of what change you planned to make:

Introduction of an expert system CAMEOS - Computer Assisted Medical Evaluation of Symptoms - for primary care

Assessment of existing situation and analysis of its causes:

The following statistics were measured. Consultation length mean 3 - 7.8 min. Minimum and maximum click counts were 2 and 11. 50% interquartile value (IQV) was 5. 25% and 75% IQV were 3 and 6. Interquartile range (IQR) is 3. Therefore click count by most users was 3.
3. Minimum and maximum word count was 104 and 1765. 50% IQV was 564.5. 25% and 75% IQV were 500.5 and 987. IQR is 486.5. Therefore commonest recorded word count for the sample was 486.5. Data entry errors per consultations - double data entry 15, redundant data entry 35, contradictions 0. Common 7 cognitive errors detected and avoided (4)

Conclusion:

The use of CAMEOS in primary care practices is feasible and benficial.

Effects of change:

In depth understanding of the process of diagnosis in primary care. Possibility of keeping and maintaining records about the most difficult aspect to be computerized so far in health information technology which is diagnostic reasoning.

Lessons learnt:

1) CAMEOS is feasible

2) CAMEOS is easily integrated into the work flow of primary care doctors

3) Contribution of expert systems for performance improvements in primary care

Message for others:

1) Health information technology has much to offer for primary care performance improvements
2) Expert systems have much to offer to meet the research needs of the International Primary Care Respiratory Group (5)

Declaration of Interest: Presenting author is the designer and developer of the expert system used in the study.

References & Clinical Trial Registry Information

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IS-09. Improving Asthma/COPD care by involving different community stakeholders

Muhammad Jahangir Kabir, Tasmeeyh Ahmed, Chowdhury Zabir Hossain Tanim, Tanzia Afrin Haq, Fakrul Ahsan, Sahriar Ahmed, Saleh Ahmed, Shafiul Islam Piyal
BPCRS

Brief Outline of Context:

Asthma and COPD are the two common respiratory problems in Bangladesh. As per National Asthma Prevalence Study (NAPS) in 1999 and 2009 we have about 100 million asthmatics and BOLD-BD study 2006 about 69 million COPD patients. All of the patients need to use inhaled medications according to the evidence based guidelines. Use of inhaled drug has many limitations like acceptability, misconceptions, ability to use etc. We believe that developing awareness and involving different stakeholders of the community may overcome many of the barriers. As such we planned to run a mass awareness and training program among the stakeholders e.g. patients, health care providers, community leaders, opinion and religious leaders etc.

Brief outline of what change you planned to make:

We planned to make change the traditional practice and implement patient empowered care of the chronic respiratory diseases.

Assessment of existing situation and analysis of its causes:

We learnt from the NAPS and BOLD-BD study that most of our patients do not use inhaled drugs due to different issues including misconception, high price of the unit, improper technique, social stigmata etc.
Poor health literacy, poor buying capacity, misconception about inhaled drugs, poor ability to use devices, inappropriate selection of devices was the main causes.

Conclusion:

Our effort made a difference of using inhaled drug for chronic respiratory diseases like asthma and COPD. People became more aware of the inhaled drug and its rationale to use. Awareness and multilayer community involvement may make a significant difference in longstanding respiratory disease management.

Effects of change:

People accept inhaled drugs more eagerly than ever. Lot of misconception eliminated from the society. The ultimate result was well asthma control and better quality of life for the patients with COPD.

Lessons learnt:

Every improvement needs a change. Better asthma and COPD care need to implement evidence based management plan with a switch over to new things. Every new thing faces resistance at its' initial implementation, but in due course of action it overcomes.

Message for others:

Multilayer community involvement with evidence based knowledge and skill implementation is the key of success in asthma and COPD care

Declaration of Interest:

Nothing

References & Clinical Trial Registry Information

Available on request

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IS-10. Improving paediatric asthma care with EMR based tools

Christina Davey[1], Andrew J Cave[1], Gayle Grout[2]
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Brief Outline of Context:

Paediatric asthma management is suboptimal despite international, national, and provincial guidelines. The purpose of this study is to develop and test a technological intervention for primary care physicians (PCPs) to improve patient management and care.

Brief outline of what change you planned to make:

A clinical pathway and population management dashboard for paediatric asthma were developed and inserted into electronic medical records (EMRs) of PCPs.

Assessment of existing situation and analysis of its causes:

Our approach began with the identification of the problem – a knowledge-practice gap in the management of paediatric asthma in a primary care setting – followed by synthesis of the evidence into a pathway and assessment of potential barriers.

Pathway templates and an intervention strategy were developed by a team of asthma experts over a 2-year period. Through partnership with an EMR vendor, a population management Outcomes Dashboard was added. Finally, twenty-two primary care practices across Alberta, Canada were recruited and randomized.

Conclusion:

A primary care clinical pathway for managing childhood asthma was inserted into EMRs to facilitate PCPs utilizing best-evidence. An EMR embedded dashboard captures clinical and process indicators for the PCPs to review, analyze, or action. Furthermore, dashboard indicators provide insight to the study team to validate the asthma template adoption and identify areas for coaching to reinforce best practices.

Effects of change:

The proportion of children who are appropriately treated with a preventer will be the primary outcome. If the study shows improvement in the management of asthma in children, the pathway will be offered to all PCPs in Alberta, Canada.

Lessons learnt:

The opportunity to enable physicians at the point-of-care with both guideline-based patient encounter tools and population perspective allows PCPs to make improved data-driven actions. However, physicians do not use templates fitting the encounter as often as expected.

Message for others:

Collaboration and partnership with EMR vendors opens new possibilities in the development and utilization of technological solutions.

Declaration of Interest:

AJC has received research support/honoraria from PHARMA industry companies that are unrelated to this project or presentation. GG is a manager at TELUS Health and holds TELUS shares. CD has no conflicts to declare.

References & Clinical Trial Registry Information

NCT02481037

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IS-11. Montelukast: in management of Asthma in Bangladesh

Farhan Imteag[1], Farhana Habib[2], Kamrun Nahar[3]
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Brief Outline of Context:

Bronchial asthma is a chronic inflammatory disease characterized by airway hyperresponsiveness and respiratory symptoms. Leukotrienes are important proinflammatory mediators in asthma. This cause bronchoconstriction, mucus secretion, increased vascular permeability and eosinophil migration to the airways, and also promote smooth muscle proliferation. Montelukast is a selective cysteinyl - leukotriene receptor antagonist (LTRA) that reduces asthmatic inflammation and airway resistance and prevents bronchoconstriction.

The novelty of LTRAs was that they target a specific mechanism, the binding of leukotrienes to their receptors, which is part of the complex pathway involved in asthma. montelukast has shown the best efficacy and safety profile, and it has become the most widely studied anti-leukotriene compound.

Brief outline of what change you planned to make:

After several years of clinical practice and hundreds of clinical and experimental studies, the position of montelukast in the management of asthma is well defined. According to Global Initiative for Asthma guidelines, montelukast is the recommended alternative monotherapy to low-dose ICS, especially in a step-down strategy (step 2), and also as an add-on treatment to ICS plus LABA combination, in order to improve control and reduce the dose of ICS (steps 3 and 4)

Assessment of existing situation and analysis of its causes:

ICSs are used as medication for early intervention and long-term management of asthma, because they directly reach the airways and intensively inhibit airways inflammation and represent a gold standard in anti-inflammatory treatment. However, for some patients with persistent asthma, ICS as prescribed may fail to achieve adequate control. Also, when the amount of drug deposited in the respiratory tract increases with using higher doses, the risks of adverse drug reactions also increase.

Montelukast may be used as monotherapy as an alternative to low-dose ICS or in addition to ICS for improving clinical manifestations by an increase in anti-inflammatory effects and a sparing of corticosteroids.

Conclusion:

In summary, montelukast is effective on many biological and pathophysiological mechanisms involved in asthma, and on which ICS are only partially effective. It represents a good alternative to ICS as monotherapy

Effects of change:

Better asthma control and acceptability of therapy by the patient

Lessons learnt:

Oral therapy is still more acceptable to the patients of Bangladesh

Message for others:

Always evaluate the patient preference in any long term therapy

Declaration of Interest:

Nothing

References & Clinical Trial Registry Information

on request

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IS-12. Nebulized Drug Therapy in Least Developed Countries

Muhammad Jahangir Kabir[1], Khalid Sharif[1], Tasmeeyh Ahmed[1], Chowdhury Zabir Hossain[2], Shahriar Ahmed[1], Saleh Ahmed[1], Tanzia Afrin Haq[1], Fakrul Ahsan[1], Shafiul Islam Piyal[1]
[1]BPCRS, [2]BP

Brief Outline of Context:

Nebulizer is popularly known for asthma and COPD drug therapy in Bangladesh. It has strong placebo effect and patient's reliance on it is very high. People with any type of breathlessness ask for nebulization from the health care providers. Local chemists also arranged bronchodilator therapy in their shop. Such a popular and widely used therapy may help by appropriate therapy but can do similar amount of injury to health as well. Structured training to the health care professionals may help to get the benefit and reduce the injury by inappropriate use of it.

Brief outline of what change you planned to make:

We don't have an evidence based guidelines on nebulizer. Pharmaceutical companies provide information on which the practice is based. We planned to aware the patients and health care professionals about the appropriate use of nebulized therapy for asthma, COPD and for the relief of bronchospasm. We included the contents as:
o Indication of nebulized drug therapy.
o How nebulizer works
o What is the fill volume and dead volume of a nebulizer
o When to start and switch off the nebular
o How to prevent spread of infection through nebulizer etc.

Assessment of existing situation and analysis of its causes:

There was a lot of inappropriate use of nebulizer therapy in our community, even in the hospitals. We observed the practice of nebulizer therapy in different hospital, nursing homes, clinics and rural health service (public and private). Our observation was that, small volume Jet nebulizer is used almost everywhere. Most of the time ready-made nebules are use with a volume of 2.5 ml liquid. A small volume jet nebulizer need ideally 4-6 ml fill volume to get the maximal benefit from nebulier therapy, which is absent in most of the practices. As a result patients are getting sub-optimal response from the therapy and suffering more from airway obstruction.

Conclusion:

We need a national guideline on nebulizer therapy assuming that it would be used by all level of health care professionals including very root-level village doctors.

Effects of change:

Awareness and appropriate use of nebulizer will reduce the suffering of bronchospasm and hospitalization as well.

Lessons learnt:

Evidence based use of drug delivery system is essential for the better care of asthma and COPD in primary care respiratory service.

Message for others:

As the health professional of day to day care of respiratory illness, we should be aware that our team will be educated enough to use the nebulizer in appropriate way.

Declaration of Interest:

Nothing

References & Clinical Trial Registry Information

Available on request

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IS-13. Pulmonary rehabilitation- poor setting experiences in Bangladesh.

Rowshan Alam
Rangpur Medical College,Bangladesh

Brief Outline of Context:

Pulmonary rehabilitation- poor setting experiences in Bangladesh.

Brief outline of what change you planned to make:

In case of COPD & ILD pharmacological management is not sufficient, Pulmonary Rehab is an effective intervention for better quality of life.

Assessment of existing situation and analysis of its causes:

In present situation there is no provision of pulmonary rehab in our country as because health care professionals are not aware of pulmonary rehab.

Conclusion:

Severity assessment of COPD, ILD and Pulmonary fibrosis & guideline base treatment in addition to pulmonary rehab is mandatory for better efficacy for proper management of those diseases.

Effects of change:

Activity score, impact score and symptom score are significantly changes after pulmonary rehab.

Lessons learnt:

Primary care respiratory physician must have pulmonary rehab center on the basis of their capacity for proper management of COPD, ILD and pulmonary fibrosis.

Message for others:

Everyone should learn and disseminated the message of pulmonary rehab to primary care respiratory physician.

Declaration of Interest:

Nothing. It is my personal pulmonary rehab setting.

References & Clinical Trial Registry Information

It is my personal pulmonary rehab center. So it is not applicable.

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IS-14. Six-part asthma care in resource poor setting

Khondakar Mohammad Ataul Gani
University of Chittagong

Brief Outline of Context:

Asthma is one of the major health burden in Bangladesh. According to National Asthma Prevalence Study (NAPS) in 1999 & 2009, we have about 100 million asthmatics in Bangladesh with very poor evidence based protocol. Still we have traditional history taking, mere physical examination and writing prescription, which will be served by non-trained pharmacists. Our aim was to improve and make a change in the existing asthma care.

Brief outline of what change you planned to make:

We planned to promote the guideline based asthma care with the empowerment of patient and carer about self-management. As such we adopted the GINA guidelines as our own into six-part asthma care. History taking, Establishing the variation of airway obstruction by objective test, Making the diagnosis and conveying the message to patient, Drug delivery training, Asthma education including asthma action plan and finally Addressing all the concerns of patient.

Assessment of existing situation and analysis of its causes:

At present, asthma care in our country is limited to diagnosis by history only and writing the asthma drugs, which will be supplied by non-trained (on asthma drug delivery) chemist. Asthma education and self management is almost absent in most of the asthma centre.

Conclusion:

Asthma is a long-standing respiratory condition and is not curable. Well control of the condition is our target. Present traditional care is not sufficient to achieve such well control of asthma. Patients should be empowered and provided personalised asthma action plan for the better asthma care and make a significant change.

Effects of change:

Obviously the implementation of six-part asthma management plan will help to achieve better asthma control in the resource poor countries.

Lessons learnt:

Every implementation needs a change. Asthma care should be re-evaluated and according to acceptibility and availability asthma care is to be implemented.

Message for others:

Nothing is impossible in the least developed countries. Here the patients are very co-operative and helpful to accept the changed care if explained well.

Declaration of Interest:

Nothing

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IS-15. SMART Therapy in Asthma: Bangladeshi perspective

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Brief Outline of Context:

The global burden for patients from exacerbations of asthma and day-to-day symptoms has increased by almost 30% in the past 20 years. The strategy of asthma management aims is to prevent and relieve acute attacks and achieve long-term control of symptoms. Adjusting medication for uncontrolled asthma involves selecting one of several options from the same or a higher treatment step outlined in GINA guidelines. The inhalation of corticosteroid coupled with long-acting β2 agonist (ICS/LABA) from a single inhalation device twice daily has become a valuable strategy. This combination approach reduces exacerbation risk and increases the likelihood of controlling asthma more often, more rapidly than is seen with ICS therapy alone.

Brief outline of what change you planned to make:

The use of a combination inhaler containing budesonide & formoterol as both maintenance and quick relief therapy (SMART) has been recommended as an improved method of using inhaled corticosteroid/long-acting β agonist (ICS/LABA) therapy.So using a single inhaler for maintenance and reliever therapy has the additional benefit of simplifying the treatment regimen for patients

Assessment of existing situation and analysis of its causes:

Although anti-inflammatory is the key component of asthma care, it is not used commonly by the patients. They like relievers for their rapid bronchodilating properties. As such, tagging an anti-inflammatory drug with a rapid acting bronchodilator will enhance the use of Anti-inflammatory drugs in asthma.

Conclusion:

Formoterol/Budesonide combination is a SMART approach, that means more convenient regimen for patients and may increase therapy compliance.

Effects of change:

Better asthma control

Lessons learnt:

Evidence based care should be incorporated with acceptability, affordability and availability of the drug.

Message for others:

As per the description

Declaration of Interest:

Nothing

References & Clinical Trial Registry Information

On request

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IS-16. Solo Physicians can do wonders to control TB in Private sector- A step towards Zero TB in Khyber Pakhtunkhwa Pakistan

Maqsood Ali
TB Control Programme

Brief Outline of Context:

Khyber Pakhtunkhwa is one of the Provinces of Pakistan with 270 per hundred thousand TB incidence rate. Provincial TB Control Program (PTP) Khyber Pakhtunkhwa (KP) *provides free TB care services to about 25 million local population. There are 78 Labs and 392 General Practitioners enrolled in 16 districts across the province. Sputum smear microscopy and ATT under DOTS strategy is provide by the Program. The objective was to detect all TB cases attending these Physicians and treat successfully 90 % of them.*

Brief outline of what change you planned to make:

This was a retrospective study of 2016 with 4 main interventions. All patients attending the clinics of the Physicians were sorted out and symptomatic were screened through SM. screening done through, clinical history; signs and symptoms and correlated with the smear microscopy. *In 1st intervention type, 392 GPs were enrolled. In 2nd type, 4 NGOs were involved. In 3rd type, 2 private hospitals were included. In 4th type, 6 Parastatal Hospitals were included.* As per WHO/ NTP protocol, only those pts were declared positive, whose smear microscopy indicated positive results. The rest of the negative patients were educated for the care of patient and personal biosafety*. The data of the last 1 year was analyzed through spss software.*

Assessment of existing situation and analysis of its causes:

About 10512 presumptive cases were registered for free TB treatment in the private sector. These were 23% of the total cases registered (45452) about 7844 pts (74.6 %) were treated by solo Physicians. NGOs registered about 2427 (23 %). The Private Hospitals could register 186 cases (1.76 %) while Parastatal institutions only 56 cases (0.53 %). There was no significant difference between male to female ratio ($p<0.05$). Almost 80% Pts were belonging to 14 to 54 years category.

Conclusion:

Solo Physicians are vital to end TB. More Physicians should be trained and involved in outreach services to trace missing pts and avert possible risk of MDR TB and TB HIV Co-infection. Implementation of TB as notifiable disease will bear good results. Innovative approaches must be tried to strengthen this.

Effects of change:

Solo Physicians registered large number of TB Patients, which helped to chase Targets

Lessons learnt:

Solo Physicians should be involved as per national guideline. Community outreach services with chest camps and mass mobilization be conducted.

Message for others:

1-Innovative approaches must be tried.

2-Declaration of TB as notifiable disease.

Declaration of Interest:

Data and information presented are correct and have no pecuniary or other personal interest.

References & Clinical Trial Registry Information

TBeMIS (tb.kpdata.gov.pk). access is restricted.

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IS-17. Tackling indoor air pollution (IAP) in urban slums

Cristian Ghergu, Preeti Sushamam
Health in Slums / Maastricht University

Brief Outline of Context:

Non-notified slums in Bangalore, India, rely heavily on cooking on traditional stoves (*chulhas*) with biomass fuels, whose incomplete combustion leads to the release of harmful airborne substances inside people's homes.

Brief outline of what change you planned to make:

In *Exhale*, a multidisciplinary, multi-stakeholder project, we seek to employ collaborative, participatory methods to explore, develop and implement solutions to IAP in non-notified Bangalorean slums. In doing so, we aim to overcome issues of poor sustainability and acceptability of improved cookstoves (ICS) that have historically plagued such initiatives.

Assessment of existing situation and analysis of its causes:

To better understand the causes and factors underlying this issue, we relied on studies and reports by the scientific community and international organisations such as the WHO, and conversations with people involved in other local projects focusing upon IAP. Moreover, we reframed the problem to fit the context within which we sought to tackle IAP, and explored views and considerations of local communities.

Conclusion:

We employed a flexible, exploratory, emergent project design whereby a community of practice, involving researchers from diverse backgrounds designers, slum inhabitants (end-users), engaged in a community-centred initiative for co-designing an ICS that is tailored to the resources and constraints of the setting. Exploring the results of Project Exhale is an ongoing process which relies on the use of qualitative methods, whereby we assess the acceptability of the ICS and its 'fit' in the context of implementation. We use local methods of assessing, say, soot emission with white sheets that provide visual representations of smoke reduction by the ICS. These assessments are supplemented by a larger randomised controlled trial (RCT) which aims to study the effect of use of ICSs on respiratory health, by comparing lung functions of households with and without ICS.

Effects of change:

By introducing an ICS that has been tailored to fit the environmental and cultural requirements of the people, rather than a one-size-fits-all, externally-fabricated product, we expect to see an improved uptake and sustained use of the solution, thereby providing a long-term alleviation of IAP in slum households.

Lessons learnt:

Our experiences show that ICS relying only on technical proficiency can fail to account for the multitude of contextual aspects that would constitute an 'appropriate technology', such as cooking habits, perceptions of smoke, space, fuel availability and others. In this line of thought, we learnt that participatory methods can considerably attune the development of the ICS to these aspects.

Declaration of Interest:

Project Exhale is jointly spearheaded by Maastricht University and Zuyd University, and is sponsored by Dutch Governmental funding (NWO-STW).

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IS-18. The role of mHealth in respiratory disease care coordination: Designing with patients and caregivers.

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Brief Outline of Context:

Low- and middle-income countries (LMICs) now bear the majority share of the burden of non-communicable diseases (NCDs) such as chronic respiratory diseases. It is estimated that close to 90% of chronic obstructive pulmonary disease (COPD) deaths occur in LMICs. However, health systems in these settings often face many constraints in healthcare service delivery and are inadequately prepared to meet the growing burden of disease.

Brief outline of what change you planned to make:

This has created a unique opportunity to extend primary healthcare to remote and underserved populations, particularly in LMICs. The field of 'mHealth' seeks to capitalize on this opportunity to strengthen linkages between patients, caregivers and healthcare personnel with the ultimate goal of improved health outcomes.

Assessment of existing situation and analysis of its causes:

Mobile technology has spread rapidly, reaching and connecting more people and pockets of the world than before. Over 97% of the global population now lives within reach of a mobile phone signal.

Conclusion:

MHealth is already being used to improve access, adherence, and quality of care in many LMICs for infectious diseases such as malaria and HIV/AIDS (Tomlinson). Similar mHealth tools can also be applied to chronic respiratory diseases as well, including prevention, screening, diagnosis and treatment for respiratory diseases such as COPD and TB, service reporting of respiratory care coordination, stock management for essential medicines and supplies for respiratory diseases, and performance management of health workers and health systems

Effects of change:

This oral presentation provides opportunities for mHealth tools to support care coordination for chronic respiratory diseases. It will also highlight the importance of human-centered design (HCD) in mHealth interventions, and share key design elements that can help participants as they begin to map their respective ecosystems, stakeholders and user needs, to design impactful mHealth interventions

Lessons learnt:

Successful mHealth interventions, however, require careful human-centered design that takes into account the needs of end users, including patients, community health workers and caregivers, and solves the pain points faced by them in delivering and receiving care for chronic respiratory diseases.

Message for others:

MHealth tools offer a unique opportunity to address many of the healthcare delivery challenges related to access, quality and adherence of care in the last mile. As the burden of chronic respiratory diseases in LMICs grows and imposes further pressures on already weak health systems, mHealth offers an innovative solution to support the prevention, screening, diagnosis and treatment of chronic respiratory diseases and improve health outcomes in low-resource settings around the world.

Declaration of Interest:

No undisclosed interests

References & Clinical Trial Registry Information

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IS-19. Xpert MTB Rif assay to early diagnose and chase end TB targets- an experience in Khyber Pakhtunkhwa Pakistan

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Brief Outline of Context:

Khyber Pakhtunkhwa (KP) is one of the Provinces of Pakistan with 270 per hundred thousand TB incidence rate. Provincial TB Control Program (PTP KP) provides free TB care services to about 25 million local population. There are 230 BMUs in Public Sector and 92 Labs linked with 392 General Practitioners (GPs) enrolled in Private Sector across the province. Quality sputum smear microscopy and ATT under DOTS strategy is provide by the Program. The objective was to detect Rif resistance (RR) and MTB in referred cases as per set protocol, and, treat successfully 90 % of them.

Brief outline of what change you planned to make:

This was a retrospective study of three years 2014 to 2016 whereas, 9 Xpert machines were installed in 2014, 10 in 2015 and 17 in 2016. All patients (pts) attending the clinics were referred to Xpert after meeting criteria and screened. All pts were also screened with clinical history; signs and symptoms were recorded and were correlated with the smear microscopy. Those found RR were enrolled for MDR treatment in PMDT site. MTB were registered as per DOTS strategy. Those found No MTB detected, were provided symptomatic treatment and health education for the care of patient and personal biosafety. *The data of the last 3 years was analyzed through spss software*

Assessment of existing situation and analysis of its causes:

From 2014 to 2016, about 20503 presumptive pts screened, out of which 954 (4.65%) RR cases diagnosed, which were notified to PMDT. About 7775 MTB (37.9%) cases diagnosed and treated on DOTS. 12011 (58.58%) pts were MTB not detected and treated for chest infections. About 673(3.28 %) cases were invalid and having error. There was no significant difference between male to female ratio ($p<0.05$)

Conclusion:

Xpert testing is vital to detect early RR and MTB in a high burden community. Cost-benefit ratio estimation may be done in the local setting. Physicians should be motivated to follow referring protocol and avoid undue referral. Mass awareness and Chest camps be conducted to refer missing cases to Xpert. Declaration of TB as notifiable disease may be tried. Other diagnostics may also be tried to address, high prevalence of primary TB, MDR/XDR and TBHIV co-infection

Effects of change:

- Xpert ensured early diagnosis
- may help avert TB epidemic

Lessons learnt:

- referral of presumptive cases as per protocol
- innovative diagnostics be used to detect MTB
- TB declaration as notifiable disease.
- outreach services.

Message for others:

- modern technology be used to detect pts;
- capacity be developed.

Declaration of Interest:

- information shared are correct
- no interest clash or financial gains.

References & Clinical Trial Registry Information

TBeMIS(tb.kpdata.gov.pk)

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