



ABC Project Newsletter Issue n° 3/2010

Ascertaining Barriers for Compliance: policies for safe, effective and cost- effective use of medicines in Europe



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The ABC Project is the EU-funded research initiative to improve patient adherence to medication in Europe. The strategic goal of the project is to produce evidence-based policy recommendations for improving patient adherence, and thus raising the effectiveness of medications use by Europeans. The project's findings are expected to help health policymakers take the right decisions to minimize the negative impact of non-adherence. The ABC Project was launched on January 1, 2009 and will run until December 31, 2011. www.ABCproject.eu

ESPACOMP

ABC at European Symposium on Patient Adherence, COMPLIANCE and Persistence, 17-18.09.2010 Lodz, Poland



The 14th edition of the **European Symposium on Patient Adherence, COMpliance, and Persistence – ESPACOMP 2010** - was held on the 17th-18th September 2010 in Lodz, Poland.

Close to 100 researchers, medical professionals and pharmaceutical industry representatives participated in this event. The growing interest in adherence-related research was reflected in the number of submissions, which nearly doubled that of previous year. Therefore, the programme of this two-days long meeting was packed with high quality research presentations by excellent speakers. The thematic spectrum was widely ranging: from latest updates on adherence terminology, new methods of adherence measurement, to recent interventions to improve adherence, including e-health.

The meeting was opened by Assoc. Prof. Przemyslaw Kardas from the Medical University of Lodz, President of ESPACOMP 2010. In the opening lecture in honor of *Jean-Michel Métry* who passed away in 2009, Prof. Michel Burnier from the University Hospital of Lausanne pointed at the lack of the unequivocal evidence for superiority of combination pills over traditional ones. The first session *“What’s new in direct measurement of adherence”* was opened by Aunia Grogan, Global Head of Adherence at Novartis. This new position within one of the Big pharmaceutical companies symbolises its growing dedication to adherence problems, and may indicate a breakthrough in pharmaceutical industry’s involvement in this field. Aunia Grogan described the Proteus system. With sensors being built in the pills, and connecting through the mobile phone with the server, this technology gives an unique opportunity to trace the pathways of single doses, including drug intake. Prof. Marijn de Bruin from Wageningen University underscored the power of electronically compiled drug-dosing histories in improving adherence and treatment decision-making. Dr. Pepijn van de Ven from the University of Limerick extensively reviewed the use of e-health and telemedicine in improving adherence in Europe. Very interesting and new to this symposium were the topics related to regulatory and legal issues: *“Patient adherence in pre- and post-registration”*, by Prof. Ivo Abraham from University of Arizona, and the *“Law’s role in achieving patient adherence”*, by Dr. Stewart Duffy. These are just a few out of the number of outstanding presentations presented this year. The scientific program, as well as the abstract book, and presentations in PDF format, are downloadable from www.ESPACOMP.eu

The ABC project, being currently in its middle stage, was represented by three presentations covering the results of three separate studies. Dr. Bernard Vrijens from Aardex Group presented the newest results of the ABC team work on the taxonomy to describe deviations from prescribed drug therapy. Emily Fargher from Bangor University gave a talk on *“Applications of health psychology and behavioural economics to explain adherence to medicines in adult patient”*;; and Assoc. Prof. Przemyslaw Kardas from the Medical University of Lodz gave an overview of results of a systematic review of literature on the *“Determinants of patient adherence to medical treatment”*.

For the first time, the ESPACOMP meeting was accompanied by a local educational initiative – the Polish Educational Day on Patient Adherence. This event gathered a number of doctors, pharmacist and nurses, interested in learning more about the topic, which they found to be highly relevant to their daily practice. The program contained interdisciplinary presentations by both international and Polish renowned scientific experts, including the concise overview of the ABC project findings. Eager discussions from the audience coupled with enthusiastic opinions about the initiative encouraged the organisers to plan its future editions.

[/www.espacomp.eu](http://www.espacomp.eu); www.zmr.lodz.pl/

ABC at the 24th European Health Psychology Conference, 1-4.09.2010 Cluj-Napoca, Romania

Dr. Val Morrison, representing Bangor University and the ABC project team, presented the findings of the systematic review of health psychology models of adherence, in a moderated poster format at the 24th European Health Psychology Conference, Cluj-Napoca, 1-4 September 2010. The poster was entitled *“Application of health psychology to explain adherence to medicines in adult patients: a systematic review of empirical studies”*.



WP 3 objective

To find out the determinants of non-compliance with short-term and long-term treatment for different clinical sectors, health care settings and population segments

data fields was performed. The quality of each study was then assessed in terms of adherence measure, study design and sample size. As many as 2308 publications were identified, of which 1605 were excluded following title and abstract screening. Finally, 703 full papers were assessed, and 203 included in the review. Health psychology models derived from social cognitive theory, self-regulation theory or social learning theory, and economic theories of consumer demand and time preference have been used to explain medication adherence. Self-report was the most common measure of adherence. The extent to which individual components of the relevant model were tested varied. A conceptual framework for the determinants of adherence was then proposed at the ABC Project meeting in Leuven, Belgium, in June 2010. This framework accommodates individual models from within the identified theories and is intended to provide a theoretical basis for the development and assessment of effective adherence-enhancing interventions. The results of this work package were presented at the 24th European Health Psychology Conference, 1-4.09.2010 Cluj-Napoca, Romania; and the European Society for Patient Adherence, COMpliance and Persistence, Lodz, Poland, 17-18 September 2010. The findings of this work package will be disseminated via scientific journals over the forthcoming months.

WP3 news

As part of the ABC project, this work package aimed to examine the contribution of health psychology and behavioural economic models to the understanding of adherence to medicines in adults. A systematic review of the literature has been conducted according to the PRIMSA guidelines. Search terms relating to adherence, medicines, theory, and behavioural models (limits: years 1990-2010, human) were combined in two separate searches of the health psychology and economic literature. All study types containing empirical data on adherence determinants were included. Independent extraction of articles by two reviewers using predefined



WP 8 objective

To prepare and update a dissemination plan based on ongoing monitoring of market information and assessment of stakeholders needs

WP8 news

The ABC dissemination plan has been recently completed. The document incorporates numerous instruments and channels, some of them as innovative as Internet forum or emailing group, to promote project visibility and communication of project results to particular target groups. The strategy involves the following target groups, each addressed by means of specially selected channels: project partners, scientific community, pharmaceutical industry, key stakeholders in the field of patient adherence to medication, and the general public.

Due to active promotion of the project by the Dissemination Manager's, and extensive contributions to project dissemination from the partners, the number of

ABC conference presentations and media releases on the project is quite high. The ABC website **www.abcproject.eu** is easy to navigate, rich in content, project news, links to related initiatives and media releases. It also includes a 'Partners Area' section, a tool facilitating project management and communication between partners.

Adherence problems in elderly - a new systematic review in JAMA.

According to a recent publication in the Journal of American Medical Association by Steinman and Hanlon "approximately one-half of older patients have problems with taking at least 1 medication". The systematic literature review entitled "Managing Medications in Clinically Complex Elders: There's Got to Be a Happy Medium" evaluated the effect of interventions to improve suboptimal prescribing. The study concentrated on elders in ambulatory settings who were taking multiple medications. Discussing the adherence problem, the authors suggest that during patient's medication review, doctors may deduce some clues about adherence e.g. observing medication organization, pill counts and refill history (by using information on the refill date and quantity dispensed printed on the label). They underline the importance of patient's understanding why they take each medication - it is proven that older adults understand the purpose of as much as 88% of their medications. The authors advise doctors to use non-judgemental questions in eliciting nonadherence such as "I know it must be difficult to take all your medications regularly. How often do you miss taking them?" They also suggest that doctors should prescribe long-acting medications to decrease the number of doses per day and medications that can treat 2 or 3 conditions simultaneously to reduce the number of drugs taken. Among the barriers to medication adherence they list are forgetting to take medication, patients' believes that the drug is not needed, difficulty in taking the drug and its cost. The solution for the latter is substitution with lower-cost generic alternatives instead of brand-name drugs, which reduces the probability of not buying the proper medication but keeps the same effectiveness of treatment. The authors summarize that "prescribing for older patients is an extraordinarily complex endeavour" thus many patients need a combination of approaches in order to improve adherence.



Reference: Steinman MA, Hanlon JT. Managing medications in clinically complex elders: "There's got to be a happy medium". JAMA. 2010 Oct 13;304(14):1592-601.

National Health & Nutrition Examination Survey

Results of the National Health and Nutrition Examination Survey (NHANES) conducted by Sung Sug Yoon and colleagues from the US National Center for Health Statistics have been published in October 2010. NHANES is an ongoing project in which 10,000 people complete detailed questionnaires on their health status and diets and undergo physical examinations including blood pressure measurements. The interviews and exams are conducted every two years on a new set of participants.



Commentary by **John Urquhart**, MD, Professor (wos) of Bioengineering and Therapeutic Sciences, Center for Drug Development Science, UCSF & UC Washington Center, San Francisco & Washington DC and Chief Scientist & Chairman of AARDEX Group, member of ABC Project team.

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The latest NHANES figures (the National Health & Nutrition Examination Survey, run at regular intervals by the NIH) just came out. It is a rather extensive national survey on various aspects of hypertension – awareness, treatment, achievement of blood pressure control, etc. Key results, compared to the 1999-2000 survey, are:

- the prevalence of hypertension has remained the same,
- there have been substantial rises in:
 - peoples' awareness that they have hypertension (from 69.6% to 80.6%),
 - the percentage of 'aware' people being treated (from 60.2% to 73.7%), and
 - the percentage of treated people who have achieved BP control (from 30.3% to 48.4%). BP 'control' is defined as <140/<90 mm Hg.

These are big improvements in numbers that, in NHANE surveys during the 1980's and '90's, were changing very little. The latest NHANE Survey focuses on unmet hopes that changes in "lifestyle" would reduce the prevalence of hypertension. These results are cross-sectional, not longitudinal. Given what longitudinal studies have shown about the prevailing short persistence with drug treatment of hypertension (and lipid-modifiers & other medicines meant for long-term use), with associated high rates of turnover of drug-treated patients, it would be not only informative but essential to know whether peoples' persistence with antihypertensive drugs is lengthening, or not. This is a point at which the 'herd-view' and the 'patient-view' is likely to show major divergence. Good news for the herd is not necessarily good news for individual patients.