Country involved

Partner country

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Ascertaining Barriers for Compliance

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

Research results unequivocally point at non-compliance as a major barrier to realise the benefits of evidence-based treatments, both in the case of long-term treatment, as well as short-term medication, e.g. antimicrobial therapy. The lower the compliance, the poorer the outcomes, and the less cost-effective treatments become. Moreover, non-compliance is accompanied with increased health services utilisation, and increased healthcare expenditures.

With its prevalence reaching 50% of patients, medication non-compliance is a global issue of major public health concern. This is reflected in a recent report by the World Health Organisation which calls the non-compliance "a worldwide problem of striking magnitude" (WHO 2003). However, this problem is especially relevant to European Union countries, where access to healthcare services is good and their utilisation is high. In such circumstances, no further improvement in the effectiveness of therapeutic and prophylactic medication can be realised without addressing patient non-compliance.

Considering the interest of this topic to their missions and activities, a selected number of European institutions aimed to develop strategies needed for European policymakers to effectively change the behaviour of both patients and healthcare professionals, in order to enhance patient compliance across Europe. Consequently, an international research consortium was constructed and a project was submitted to European Commission for funding within Seventh Framework Programme for research and technological development (FP7).

The project is designed for the years 2009-2011. Principal aims of the project are:

- To obtain European consensus on terminology used in the field of non-compliance
- To identify the determinants of non-compliance with short-term and long-term treatment
- To obtain insight in current practices of compliance management
- To assess the effectiveness of compliance-enhancing interventions To estimate the cost-effectiveness of compliance-enhancing interventions
- To develop policy recommendation for promoting patient compliance in European healthcare

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ABC Project Consortium

The Medical University of Lodz is a higher state school created in 2002 from a merge of civil and military medical schools. Now, it continues the several-decade history and tradition of both of these universities. With its 8 divisions and 7 teaching hospitals, 10000 students and app. 1600 academics, Medical University of Lodz belongs to the leading Polish medical universities. The University is strongly committed to scientific research in a number of health-related disciplines as well as national and international scientific cooperation. Within the ABC project, Medical University of Lodz will play a role of the coordinator of international research consortium, and will be responsible for identification and classification of the determinants of non-compliance with short-term and long-term treatments.

www.umed.lodz.pl

Ass. Prof. **Przemyslaw Kardas** MD, PhD, Director of the First Department of Family Medicine, Medical University of Lodz, e-mail: pkardas@csk.am.lodz.pl
His research activities focus on patient compliance, doctor-patient communication, and care for chronically ill patients in primary care. He is member of editorial boards of several scientific journals. He is also experienced in international scientific cooperation; he was a Director of the Polish arm of 2 European Union-funded scientific projects within the European Union Framework Programme. He is author of 3 monographs and co-author of 2 book chapters, and over 25 peer-reviewed scientific papers devoted mostly to patient compliance.

Founded in 1884, **Bangor University** now has over 10,000 students and 2,000 members of staff. The University has a strong research base across a spectrum of academic disciplines engaging in research at national and international levels. The University provides strong support for research activities including encouraging links with commercial and industrial bodies in the UK and overseas. Health-related research is led from within the College of Health and Behavioural Sciences. Within the ABC project, Bangor University will be responsible for construction of the conceptual framework for the determinants of non-compliance and cost-effectiveness evaluation of compliance-enhancing interventions.

www.bangor.ac.uk

Dr **Dyfrig Hughes** BPharm MSc PhD MRPharmS, Reader in Pharmacoeconomics, Centre for Economics and Policy in Health,
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His focus of interest is impact of non-adherence on the pharmacological, clinical and economic consequences of drug action (health economic modelling); determinants of non-adherence; assessment of the cost-effectiveness of pharmaceuticals and pharmacogenetic testing. Special interests in ABC project are related to the systematic review of interventions that have been shown to be effective in enhancing patient adherence; assessment of the cost-effectiveness of such interventions; and an assessment of patient preferences, via discrete choice modelling, of characteristics that may influence medicine-taking behaviour.

Dr **Valerie Morrison** M.A., PhD, C Psychol Senior Lecturer & Deputy Head of School (3rd Mission), School of Psychology,
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In her research she is especially interested in sociocognitive influence on health and illness behaviour (e.g. illness perceptions and adherence); sociocognitive predictors of illness outcomes, developing evidence-based psychosocial interventions to enhance patient and carer outcomes; patient and carer unmet needs in cancer and effects on quality of life. Her special interest in ABC project therefore is to identify illness and treatment cognitions relevant to adherence behaviours, as these are potentially amenable to intervention which could result in reduced personal and social costs of nonadherence.

The **University of Leuven** is a modern university, which offers an ideal research and learning environment, rooted in a solid and venerable tradition but with its sights set squarely on the future.The university nurtures a varied and complementary set of scientific disciplines, based on fundamental, applied, clinical, and policy-oriented research. The pursuit of quality is equally central to the University's educational programmes. With its unique expertise in instruments development and validation, within ABC project, K. U. Leuven will actively participate in the assessment of prevalence, determinants and consequences of non-compliance, and testing the efficacy of adherence enhancing interventions.

www.kuleuven.be

Prof. **Sabina De Geest**, Ph.D., R.N., FAAN, FRCN, e-mail: Sabina.DeGeest@unibas.ch
Sabina De Geest is Professor of Nursing and Director of the Institute of Nursing Science of the Faculty of Medicine at the University of Basel, Switzerland. She also holds a part time faculty position at the Center for Health Services and Nursing Research at the Catholic University of Leuven (Belgium), and is working in University of Pennsylvania, Johns Hopkins University, University of Missouri and the College of Nursing of New York University. She also leads the Leuven Basel Adherence Research Group, an international interdisciplinary research group focusing on behavioral and psychosocial issues with the ultimate goal to improve clinical outcomes in chronically ill patient populations (e.g. solid organ transplant, HIV-AIDS).

Dr **Fabienne Dobbels**, PhD, Center for Health Services and Nursing Research, Leuven, Belgium,
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Dr Dobbels is a psychologist being part of the heart transplantation program of the University Hospitals of Leuven, Belgium. She is currently a post-doctoral fellow of the Research Foundation Flandres (FWO) at the Center for Health Services and Nursing Research at the Katholieke Universiteit Leuven. Her key research topics include patient compliance, psychosocial issues and symptom experience in transplantation and other chronic illnesses. Dr Dobbels is a reviewer for many international journals and has presented at numerous national and international conferences, with more than 30 peer-reviewed articles, and 6 book chapters to her name.

Pharmionic Systems is the world leader in products and services for measurement-guided medication management - the process by which one measures, analyses and improves the compliance of a patient with the prescribed treatment. In clinical trials, the services provided by Pharmionic Systems allow one to measure, and thus to manage, the exposure of ambulatory patients to drugs being tested. The methods also make it possible to screen patients, especially those taking multiple non-trial medicines, to identify those whose compliance meets a minimal standard for trial enrolment. In clinical practice, Pharmionic Systems offers patient management programs, based on reliably compiled drug dosing histories, to enhance patient compliance to prescribed drugs. Pharmionic Systems also maintains a growing database of electronically compiled drug dosing histories in a wide range of diseases, showing the incidence and scope of noncompliance in the absence of medication management. Such information is essential for realistic planning of drug trials. Within the ABC project, Pharmionic Systems will lead the activities aiming to build up a consensus on European taxonomy and terminology of patient compliance, and reviewing compliance-enhancing interventions.

www.AARDEXgroup.com

Dr **Bernard Vrijens**, PhD,
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Dr Bernard Vrijens is Chief Scientist at the Pharmionics Research Centre, in Visé, Belgium and Adjunct Professor of Biostatistics at the University of Liege, Belgium. In a series of papers, he has developed various ways of extracting clinical explanatory power from drug dosing histories, as ambulatory patients variably comply with prescribed drug dosing regimens. He started to build the Pharmionic Knowledge Centre (PKC®), the largest repository of data, publications, and technical documents related to electronically compiled dosing histories. He is co-author of 2 book chapters, over 25 peer reviewed scientific papers, and named as inventor on 2 patents.

Prof. **John Urquhart**, FRCPE, FRSE,
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Prof. Urquhart is Chief Scientist and co-founder of the two companies that pioneered the development of electronic means for quantifying ambulatory patients' exposure to prescribed drugs. He has been professor of 4 disciplines: physiology (U. Pittsburgh), biomedical engineering (USC), biopharmaceutical sciences and pharmaco-epidemiology (Maastricht U). He was research director of ALZA Corp, pioneer developer of rate-controlled drug delivery systems (1971-86), is named as inventor on over 40 US patents, and has authored or co-authored 67 peer-reviewed papers and 6 books.

NPC Plus is a unique partnership between the National Prescribing Centre (itself funded by the UK Department of Health) and Keele University. NPC Plus is based at Keele University. It aims to assist organisations to understand and implement medicines policy and practices and provide healthcare professionals with knowledge and skills to make good clinical and cost-effective prescribing decisions. The Medicines Partnership Programme at NPC Plus promotes the value of involving patients in prescribing decisions and supporting patients in medicines taking. NPC Plus role in ABC project will be to integrate the research results and design a policy aiming to enhance compliance across Europe.

www.keele.ac.uk/schools/pharm/npcplus/

Dr **Wendy Clyne** - Assistant Director: Medicines Partnership Programme, NPC Plus, e-mail: w.clyne@mema.keele.ac.uk
Dr Clyne is particularly interested in ways of involving patients in healthcare consultations, so that shared decisions can be achieved between patients and healthcare professionals about medicines. She leads a group of trainers who deliver compliance and concordance training to healthcare professionals across the UK. She has produced a competency framework for shared decision making for health care professionals and recently published a guide to medication review, funded by the UK Department of Health. She is a member of the guideline development group for the NICE medicines concordance guideline, an experience that will prove very useful for the ABC project.

The **University of Aberdeen** is Scotland's third oldest university and the fifth oldest in the UK. Aberdeen is an international university built on serving one of the most dynamic regions of Europe. With over 13,000 students, and over 3000 staff, it is at the forefront of teaching and research in medicine, the humanities and sciences. Within the ABC project, the University of Aberdeen will be responsible for systematic review of current practices of compliance management across Europe.

www.abdn.ac.uk

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Ian Gould and Fiona MacKenzie have many peer reviewed publications reporting their research findings on antibiotic resistance and antibiotic stewardship. They co-ordinated the European Commission Concerted Action project entitled Antibiotic Resistance: Prevention And Control (ARPAC). ARPAC studied antibiotic resistance prevalence as well as antibiotic stewardship and consumption in over 200 European teaching hospitals. More recently, they have looked at patients' attitudes to antibiotic therapy and the use of the laboratory service in the community setting. They have extensive experience in designing patient and professional questionnaires. They also currently run the Executive Office of the International Society of Chemotherapy (ISC).