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## Inicijativa za smanjenje ostatnog rizika (R3i): Prvi sastanak nacionalnih predavača

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**U**Bruxellesu je od 29. do 31. svibnja 2009. godine održan drugi sastanak inicijative za smanjenje ostatnog rizika (R3i) i prvi sastanak nacionalnih predavača te inicijative. Ukupno je nazočilo 150 članova iz Europe, Sjedinjenih Američkih Država, Srednje Amerike, Bliskog istoka, Japana i Južnoafričke Republike. Nazočili su i predstavnici međunarodnog nadzornog odbora na čelu s predsjednikom prof. Jean Charles Fruchartom s Pasteuровог Instituta u Lille, Francuska, potpredsjednikom prof. Frank Sacksom iz Škole javnog zdravstva Sveučilišta Harvard iz Boston, SAD i prof. Michel Hermansom sa Sveučilišta Saint-Luc iz Bruxellesa, Belgija.

Iz Hrvatske su sudjelovali predsjednik R3i za Hrvatsku i koautor dva temeljna, do sada, objavljena o ostatom ri-

## Residual Risk Reduction Initiative (R3i): First National Faculties Meeting

**T**he second residual risk reduction initiative meeting (R3i) and the first national faculties meeting were held in Brussels from 29<sup>th</sup> to 31<sup>st</sup> May 2009. A total number of 150 members from Europe, the United States of America, Central America, Middle East, Japan and South African Republic attended the meeting. The representatives of the international supervisory boards headed by President, Prof. Jean Charles Fruchart from the Pasteur Institute in Lille, France, Deputy President Prof. Frank Sacks from the Public Healthcare School from the Harvard University from Boston, USA and Prof. Michel Hermans from the Saint-Luc University from Brussels, Belgium were present at the meeting.

The President of R3i for Croatia and co-author of the two fundamental papers about residual risk published so



ziku u *American Journal of Cardiology*<sup>1</sup> i *Diabetes and Vascular Disease Research*<sup>2</sup> — akademik Željko Reiner, ravnatelj Kliničkog bolničkog centra Zagreb i član hrvatskog odbora inicijative prim. dr. sc. Goran Krstačić iz Poliklinike za prevenciju kardiovaskularnih bolesti i rehabilitaciju iz Zagreba. Kako je jedan od glavnih sponzora te međunarodne inicijative farmaceutska tvrtka Solvay, bilo je i nekoliko predstavnika te tvrtke, a iz Hrvatske dr. Irena Novković-Martinović.

Inicijativa za smanjenje ostatnog rizika je inače akademika, multidisciplinarna, neprofitna edukacijska fundacija s dobro utvrđenim zadatcima i odgovornostima. Prvenstveno je posvećena nastojanjima da se smanji značajan preostali rizik u razvitku makrovaskularnih događaja i mikrovaskularnih komplikacija koje perzistiraju u većine bolesnika unatoč optimalnoj standardnoj terapiji i postizanju ciljnih vrijednosti sukladno smjernicama, uključujući dobru regulaciju vrijednosti ukupnog kolesterola i LDL-a, intenzivnu kontrolu arterijskog tlaka i glukoze u krvi.

Nakon pozdravne riječi i uvodnih izlaganja o javno-zdravstvenom značenju pobola od krvоžilnih bolesti, sadašnjoj situaciji i perspektivama za sljedeće desetljeće opetovano je izložena uloga i značaj osnivanja R3i na svjetskoj razini. Podvučen je cilj i misija inicijative sa sloganom: razmišljaj globalno, djeluj lokalno. Iz niza odličnih i zanimljivih izlaganja u okviru trodnevnog gustog programa i pet održanih sesija bit će navedeni najznačajniji dijelovi.

Podatci ukazuju da 17,5 milijuna ljudi godišnje umire od krvоžilnih bolesti, 15 milijuna doživi moždani udar, a 50% ljudi s dijabetesom umire od kardiovaskularnih komplikacija. Glede mikrovaskularnih komplikacija, 1/3 bolesnika s dijabetesom razvija nefropatiju što iznosi oko 60 milijuna ljudi u svijetu. Oko 2,5 milijuna ljudi ima dijabetičku retinopatiju, a samo u SAD se godišnje bilježi 24.000 novih slučajeva dijabetičke retinopatije s krvarenjem. Više od 60% netraumatskih amputacija okrajina posljedica je komplikacija dijabetesa.

Ni vrlo agresivna terapija niza čimbenika rizika kroz 7,8 godina dostačno ne snižava rizik mikrovaskularnih zbijanja osobito u dijabetičara tipa 2, pa tako mikrovaskularne komplikacije razvija čak 50% bolesnika, poglavito perifernu neuropatiju.

Ni učinkovito sniženje LDL-a statinima nije dostatno za veliko smanjenje makrovaskularnih događaja i mortaliteta, iako sniženje LDL-a za 1 mmol/L snižava krvоžilni rizik već za 23%. Značenje rezidulanog ili ostatnog krvоžilnog rizika nedvojbeno je, barem dijelom, vezano uz postojanje aterogene dislipidemije (povećani trigliceridi i/ili preniski HDL-kolesterol), kod koje terapija statinima ne postiže značajnije rezultate. Primjerice, dok je u proteklih tridesetak godina u SAD prevalencija povišenih vrijednosti LDL-a snižena za 7,2%, prevalencija kombinacije povišenih triglycerida i niskog HDL-a je udvostručena, a prevalencija samo povišenih triglycerida je čak upeterostručena! To je vezano uz sve veći broj pretilih osoba koje imaju takvu dislipidemiju i sve veću učestalost dijabetesa tipa 2.

Prof. Jean Charles Fruchart mišljenja je da postoje nedvojbeni dokazi iz mnogobrojnih studija koji ukazuju na činjenicu da unatoč učinkovitom sniženju LDL-a, arterijskog tlaka i glukoze u krvi učinci sniženja vaskularnog ri-

far in the *American Journal of Cardiology*<sup>1</sup> and *Diabetes and Vascular Disease Research*<sup>2</sup> — academy member Željko Reiner, Principal of the Clinical Hospital Centre Zagreb, and the member of the Croatian Initiative Board, Goran Krstačić, Head Doctor, PhD, from the Institute for Prevention of Cardiovascular Diseases and Rehabilitation in Zagreb participated in the meeting as the Croatian members. Since one of the major sponsors of this international initiative is the pharmaceutical company Solvay, there were several representatives from this company and Irena Novković-Martinović, MD from Croatia as well.

The initiative for reduction of residual risk is principally the academic, multidisciplinary, non-profitable education foundation with well established tasks and responsibilities. It is mainly dedicated to attempts to reduce a significant residual risk in development of macrovascular events and microvascular complications that persist in majority of patients despite an optimum standard therapy and achievement of target values according to guidelines, including a good regulation of the value of total and LDL cholesterol, intensive control of blood pressure and blood glucose.

Following the welcome speech and introductory lecture regarding public health importance of vascular diseases, the role and importance of establishment of R3i at international level was again presented in the current situation and perspectives for the next decade. The initiative goal and mission was emphasized with the following motto: think globally, do locally. The most important segments will be mentioned from the series of excellent and interesting lectures within a three-day active program and five sessions held.

The data indicate that 17.5 million people die from vascular diseases on an annual basis, 15 millions experience stroke and 50% of people with diabetes die of cardiovascular complications. Regarding microvascular complications, 1/3 of patients with diabetes develop nephropathy which amounts to around 60 million of people in the world. Around 2.5 million of people have a diabetic retinopathy and only in the USA there are 24,000 new cases of diabetic retinopathy followed by bleeding recorded on an annual basis. More than 60% of non-traumatic amputations of extremities are the complication caused by diabetes.

Not even a very aggressive therapy of a series of risk factors throughout the period of 7.8 years sufficiently reduces the microvascular risk especially in diabetic patients, type 2, so consequently, even 50% of patients develop microvascular complications, especially peripheral neuropathy.

Even an effective LDL reduction by using statins is not sufficient for a significant reduction of macrovascular events and mortality, even though a reduction of LDL by 1 mmol/L reduces the vascular risk by even 23%. The importance of residual cardiovascular risk is undoubtedly, at least partly, connected with the existence of atherogenic dyslipidemia (increased triglyceride and/or too low HDL-cholesterol) whereas the statin therapy achieves no significant results. For example, while during the last thirty years the prevalence of increased LDL values has been reduced in the USA by 7.2%, the prevalence of the combination of increased triglycerides and low HDL has been doubled, while the prevalence of only increased triglycerides has been only five times that much. This is related with ever greater number of obese persons having such dyslipidemia and ever more frequent diabetes type 2.



zika nisu dostatni. Stoga, trebamo, i to žurno, novu strategiju koja će bolje djelovati na rizične čimbenike, poglavito aterogenu dislipidemiju navlastito u cilju snižavanja osnatnog rizika u bolesnika sa dijabetesom i već dokazanim krvоžilnim bolestima.

Sukladno tome, definirana je buduća strategija tretmana problema krvоžilnih bolesti koja se usmjerava u tri temeljna pravca: Istraživanja, tj. utvrđivanje značenja vaskularnog rizika i definiranje ciljeva intervencije, poglavito epidemiološkim istraživanjima mikrovaskularnih komplikacija povezanih s visokim trigliceridima i/ili niskim HDL-om kod bolesnika sa dijabetesom tip 2 koji se liječe prema smjernicama i drugo, također epidemiološka istraživanja makrovaskularnih komplikacija kod bolesnika s aterogenom dislipidemijom liječenim prema smjernicama.

Drugi pravac strategije usmjerava se prema edukaciji i to na globalnoj razini, razvoju interaktivnih R3i kliničkih programa s CME akreditacijom, web stranicom ([www.R3i.org](http://www.R3i.org)), održavanjem sastanaka, seminara i web konferencija online.

Treći pravac djelovanja su komunikacija i širenje potrebnih informacija, pri čemu se inzistira da ostatni vaskularni rizik ima prioritet u nacionalnim i internacionalnim smjernicama. Komponente komunikacije također su publikacije, znanstvene konferencije i kongresi, tiskovne konferencije i suradnja sa profesionalnim i bolesničkim udruženjima.

Na sastanku je predstavljen i razvoj tzv. webinara koji su sudionici konferencije imali i sami prigodu "isprobati" u radionicama u kojima je potom prikazan i plan nacionalnih aktivnosti za 2010. godinu.

Zadnji dan konferencije prikazane su najnovije aktualnosti i "state of art" izlaganja o dijabetesu i mikrovaskularnim komplikacijama, kao i izlaganje "Aterogena dislipidemija: pogibelj za srce".

Sudionicima je u konačnici sukladno medicini temeljenoj na dokazima prikazan i slučaj virtualnog bolesnika Roberta i njegov treći posjet ordinaciji — prva dva su do sada sudionici već imali prigodu vidjeti i sudjelovati u obradi putem računala na web stranici inicijative.

Predstavljen je i plan sljedećih susreta koji će se zbivati tijekom ove godine s naglaskom na kongres American Heart Association u studenom ove godine kada se očekuje i predstavljanje rezultata vrlo značajne ACCORD — Lipid studije (Action to Control Cardiovascular Risk in Diabetes).

Sudionici su uputili sve pohvale za besprjekornu organizaciju konferencije i poželjeli što više aktivnosti i ostvarenje predviđenih zadataka tijekom ove i sljedeće godine kada je predviđen i 3. sastanak R3i.

Received: 20<sup>th</sup> Jul 2009

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## Literature

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In Prof. Jean Charles Fruchart's opinion, there is undoubtedly evidence obtained from numerous studies indicating the fact that despite efficient reduction of LDL, blood pressure and blood glucose, the effects of reduction of vascular risks are not sufficient. Therefore, we urgently need a new strategy that will have better effects on risk factors, especially atherogenic dyslipidemia aimed at reducing residual risk in patients with diabetes and vascular diseases that have already been proved.

Accordingly, we have defined the future strategy of the vascular diseases treatment focusing on three directions: Researches, that is, determination of an importance of vascular risk and defining of intervention goals, especially by using epidemiologic researches of microvascular complications connected with high triglycerides and/or low HDL with patients with diabetes type 2 that are treated according to guidelines and secondly, also epidemiologic researches of macrovascular complications with patients with atherogenic dyslipidemia treated according to guidelines.

The second strategy direction is focused on education at global level, development of interactive R3i clinical programs with CME accreditation, web page ([www.R3i.org](http://www.R3i.org)), holding meetings, seminars and online web conferences.

The third direction of actions is the communication and dissemination of required information whereas residual vascular risk must be given priority in national and international guidelines. The communication components also include publications, scientific conferences and congresses, press conferences and cooperation with professional and patients' associations.

The development of so called webinars who are participants in conferences was also presented at the meeting and they had an opportunity to "try" workshops where they were shown a plan of national activities for the year 2010.

On the last conference day, the most recent news and state of art lectures about diabetes and microvascular complications as well as the lecture entitled "Atherogenic dyslipidemia: danger for heart" were presented.

The participants were finally, according to the evidence-based medicine, presented a case of a virtual patient, named Robert and his third visit to an outpatient clinic — the first two visits had been already shown to the participants who could participate in the treatment by using a computer on the initiative web page.

A plan for the next meetings that are to be organized throughout this year was presented, focusing on the congress American Heart Association in November this year when the presentation of findings of a very important ACCORD — Lipid Study (Action Control Cardiovascular Risk in Diabetes) is expected.

The participants praised the impeccable organization of the conference and wished more activities and accomplishment of forecasted assignments during this and next year when the third meeting R3i is to be held.