
European Parliament, Brussels

Tuesday, 4th March 2008
Contents

1. Symposium 3

2. Exhibition 6

3. MEP Group for Kidney Health 8

4. One-minute speech in plenary 9

5. Media follow-up 10

6. Conclusion 26
1. Symposium

Registration
The symposium is free of charge and open to all.
Tel.: +32 (0)2 416 21 17
Email: secretariat@ekea.eu
The European Kidney Health Alliance and World Kidney Day invite you to:

**Chronic Kidney Disease**
Europe’s Silent Epidemic

A Wake-Up Call
Tuesday 4 March 2008, 15.00 - 17.30
Location: European Parliament, Brussels
Room A3E2, 60 Rue Vautrin

Name:
Function:
Institution:
Address:
Email:

If you do not have a permanent press pass to the European Parliament, please fill in the following information. This is required to get an access pass.

Date of birth:
Nationality:
District:
IP:
Signature:
Date:

Programme
15.00 - 17.00

Introduction
Professor Andreas Reiss, Chairman of EKHA

European Parliament endorsement of kidney health issues

The daily reality of Chronic Kidney Disease (CKD) - A patient and nurse’s perspective
Valerie Twomey, Ireland
Karen Jenkins, European Diabetics and Transplantation Nurses Association-European Renal Care Association CKD Group Chair

Incidence, consequences and economics of early detection of CKD
Paul E. de Jong, Professor of Nephrology, University Medical Center Groningen

Public Health Strategies to identify CKD and to prevent its consequences (lessons from the UK and the rest of the world)
Dr. Donald J. O’Connor, National Clinical Director for Kidney Care, Sobell Royal NHS Foundation Trust UK

Roundtable discussion
17.30 Cocktail reception, Member’s salon

Background of the meeting
The essence of the current EU-level debate on Organ Donation and Transplantation is the simple fact that demand for organs for transplantation far outweighs supply. There is an immediate need to increase organ donation, but equally important is the longer term is the need to reduce the number of people developing renal failure. This is highlighted by recent data showing that seven in ten kidney deaths in the UK were preventable. Public health measures to identify early kidney disease are emerging as central to prevention efforts. World Kidney Day is held annually to raise awareness of the importance of the kidneys, and the European Kidney Health Alliance has joined forces with World Kidney Day to hold an event in the European Parliament for World Kidney Day 2008.

A Wake-Up Call
Talk of a silent epidemic. Chronic Kidney Disease (CKD) is not a metaphor—it is a reality. Silent because it often develops without symptoms, leaving the affected person completely unaware that anything is wrong and silent too because members of the general public and policy-makers alike are ignorant of its importance. An epidemic because it is common (valuable estimates suggest that at least 8% of the European population have some degree of CKD) and it is becoming increasingly worse so because it is linked to the other modern epidemics affecting Europe: high blood pressure, diabetes and cardiovascular disease. As with all epidemics, decisive action needs to be taken first by recognizing the scale of the problem and second by rising to the challenge of putting in place the strategies needed to reverse it. Via call on National Governments and EU Institutions alike to join us in our goal to improve the health of Europeans through policies designed to reduce the incidence of kidney disease and its consequences.

The European Kidney Health Alliance (EKHA) is an Alliance of non-profit organisations who represent the key stakeholders in kidney health issues in Europe. EKHA takes a multidisciplinary approach involving patients and their families, doctors and nurses, researchers and other healthcare professionals who work cooperatively for a European health environment in which there is a sustained decrease in kidney disease and its consequences. EKHA Member organisations are the following:

ECAPF (European Kidney Patients’ Federation)
ENDMERSAC (European Diabetics and Transplantation Nurses Association/European Renal Care Association)
ECHA (European Nephrology Association - European Diabetics and Transplantation Association)
ISN (International Society of Nephrology)

Chronic Kidney Disease
Europe’s Silent Epidemic
A Wake-Up Call
MEPs SUPPORT A ‘WAKE-UP CALL’ TO ADDRESS SILENT EPIDEMIC OF CHRONIC KIDNEY DISEASE IN EUROPE

Launch of MEP Group for Kidney Health

On 4th March, European kidney patients, nurses, physicians and researchers came together with MEPs in a new forum aimed at sharing information and recommendations for action on a current health scourge. The MEP Group for Kidney Health was formed due to the need to address the silent epidemic of Chronic Kidney Disease (CKD) in Europe, in particular through preventative initiatives at European Union and Member State level.

The MEP Group for Kidney Health, an initiative of the European Kidney Health Alliance (EKHA), held its inaugural meeting a week before the third annual ‘World Kidney Day’ which aims at highlighting the importance of kidney health. Mrs Frieda Brepoels MEP who chairs the Group, and Professor Andrew Rees, Chairman of EKHA, introduced the session by explaining the seriousness of the burden of CKD in Europe and highlighted the need for urgent action to curb current increases in the disease. Participants went on to discuss existing EU activities related to kidney health and to debate options for further action at EU and Member State level to step up the fight against the silent epidemic of CKD which currently affects 10% of the EU population and is set to double this figure if current trends continue unabated.

On 10th March, Mrs Brepoels formally announced the creation of the Group in the European Parliament’s plenary session in Strasbourg and asked fellow MEPs to express their support for the initiative:

“It is estimated that around 40 million people in Europe are affected by some form of kidney disease, and in the next 10 years this figure is set to double. The European Parliament can play an important role in encouraging Member States to urgently take decisive action. First, the scale of the problem should be recognised and second, strategies should be put in place to prevent this silent epidemic from growing at its current rate”

Mrs Frieda Brepoels, MEP and chair of the MEP Group on Kidney Health

The next meeting of the MEP Group for Kidney Health is set to take place in Autumn 2008. For more information contact frieda.brepoels@europarl.europa.eu

Symposium
Chronic Kidney Disease, Europe’s Silent Epidemic
A Wake-Up Call

Also on 4th March, a Symposium on Chronic Kidney Disease (CKD) was organised by the European Kidney Health Alliance.
An eminent panel of leading renal physicians and nurses, politicians and patient organisations addressed the audience on the need for policies that reduce the burden of kidney disease for patients, physicians and society at large. In his introductory speech, EKHA Chairman Professor Andrew Rees stressed the importance of healthy kidneys by explaining their vital functions of filtering toxins from the blood, maintaining a normal chemical composition of the body, and making essential proteins that control blood pressure, preserve healthy bones and prevent anaemia. Around 10% of the population of Europe is affected by some form of damage to the kidney which is often initially symptomless and this figure is currently on the increase, making it a silent epidemic for the EU. Professor Rees explained the creation of the European Kidney Health Alliance in the context of the silent epidemic of CKD and the response needed in terms of public health policies to provide safe and effective renal replacement therapy for severe kidney disease and early detection of less severe kidney disease.

Mrs Frieda Brepoels MEP gave an endorsement of kidney health issues on behalf of the European Parliament, stating that the challenge of CKD can be effectively addressed at EU-level:

“I strongly believe that the European Union can play a leading role in this regard. Efforts can be pulled together at European level by putting the prevention of kidney disease high on the European agenda. Furthermore, progress can be made by exchanging best practices between Member States and by improving existing technologies to detect kidney disease so as to ensure that every European citizen has equal access to high-quality health care”.

Valerie Twomey, a patient who underwent dialysis and more recently a kidney transplant, gave an account of her experience with kidney disease. She explained the opportunities afforded to her through her transplant and the rigorous attention she has to pay to her lifestyle as a donor recipient. She expressed the importance of organ donation by quoting a poem whose closing words were ““organs not required at your onward destination”.

Karen Jenkins, Renal Clinical Nurse Consultant and Chair of the European Dialysis & Transplant Nurses Association-European Renal Care Association CKD Group, explained the variety of professionals involved in the care of kidney patients – dietitians, social workers, counsellors, pharmacists, and community nurses amongst others. People with CKD have a complex journey and need information, education and support, and it is up to nurses and related healthcare professionals to provide this through their specialist skills and knowledge.

Paul de Jong, Professor in Nephrology, University Medical Center, University of Groningen, used data from the Prevend study to demonstrate how early detection may be achieved by the measurement of albuminuria and eGFR, and explained that such screening and early treatment of those affected by kidney disease is cost-effective since related conditions such as cardiovascular disease may be prevented and the costs of dialysis reduced.

Donal O’Donoghue, National Clinical Director of Kidney Care, UK, spoke about UK CKD policy initiatives and the importance of prevention both for patients and healthcare systems:

“We can count the cost of kidney disease in financial terms, but the impact on the lives of patients as a result of late identification and diagnosis is incalculable. For example, in the UK, dialysis alone accounts for 2% of the total NHS budget and this is projected to double over the next five years. In comparison, the cost of implementing CKD prevention strategies can be modest”.

The subsequent roundtable discussion with the audience of 60 experts and EU officials covered issues of psychological preparation of patients coming off dialysis, the links between CKD and other diseases and the health economics of CKD.
2. Exhibition

The European Kidney Health Alliance

The European Kidney Health Alliance (EKHA) is an alliance of not-for-profit organisations who represent the key stakeholders in kidney health issues in Europe. EKHA advocates a multi-stakeholder approach involving patients and their families, doctors and nurses, researchers and other healthcare professionals who work cooperatively for a European health environment in which there is a substantial decrease in kidney disease and its consequences.

Prevention & Early Detection

It’s time to step up the fight against Chronic Kidney Disease and co-morbidities

The Kidney in Health & Disease

The kidneys

Chronic Kidney Disease

Renal Replacement Therapy

Amazing Kidneys!

Every Day our kidneys filter and clean 200 litres of blood

World Kidney Day

13 March 2008

www.worldkidneyday.org
3. MEP Group for Kidney Health

Launch of MEP Group for Kidney Health

The MEP Group for Kidney Health was launched on 4th March. Mrs Frieda Brepoels, Belgian Member of the EPP-ED (European People’s Party – European Democrats) and Shadow-Rapporteur for the dossier ‘Organ Donation and Transplantation’, is Chair of the Group. So far, the following MEPs have signed a letter of support for the Group’s objectives:

- Liam AYLWARD (Ireland, UEN)
- Frieda BREPOELS (Belgium, EPP-ED)
- Magor Imre CSIBI (Romania, ALDE)
- Genowefa GRABOWSKA (Poland, PSE)
- John PURVIS (UK, EPP-ED)
- Kathy SINNOTT (Ireland, IND),
- Dirk STERCKX (Belgium, ALDE)

More signatures are expected in the coming weeks, with an expected total of around 30 MEPs supporting the objectives of the Group.

The next meeting of the MEP Group for Kidney Health will take place over lunch on Wednesday, 8th October in the European Parliament, Brussels.

Items that may be considered for discussion at the next meeting include:

- Latest EU policy developments with respect to kidney disease
- European Kidney Disease mortality and morbidity rates
- Economics of Kidney Disease in Europe
4. One-minute speech on CKD at Plenary Session of European Parliament

On Monday, 10th March, Mrs Frieda Brepoels made a one-minute speech in front of the whole European Parliament (785 MEPs) in order to draw European politicians’ attention to the growing prevalence of CKD in Europe and the need to act now to combat the silent epidemic. Mrs Brepoels announced the creation of the MEP Group and urged fellow MEPs to support the initiative. Her speech can be found below and you can access the video of the speech at http://www.europarl.europa.eu/wps-europarl-internet/faces/vod/player.jsp?date=20080310 by clicking on ‘one-minute speeches’ in the Subject box and selecting ‘Brepoels, Frieda’.

Speech to European Parliament on Chronic Kidney Disease, by Frieda Brepoels, MEP
Monday, 10th March

Dear colleagues

I would like to announce that tomorrow, 13th March, is World Kidney Day. World Kidney Day is held annually to raise awareness of the importance of the kidneys. Last week, the European Kidney Health Alliance organized a symposium in the European Parliament in Brussels entitled ‘Chronic Kidney Disease, Europe’s Silent Epidemic – A Wake-Up Call’. Chronic Kidney Disease is silent because it often develops without symptoms, leaving the affected person completely unaware that anything is wrong and silent too because members of the general public and policy makers alike are ignorant of its importance. It is an epidemic because it is common (reliable estimates suggest that at least 8% of the European population have some degree of CKD) and is becoming increasingly more so because it is linked to the other modern epidemics affecting Europe: high blood pressure, diabetes and cardiovascular disease. As with all epidemics, decisive action needs to be taken first by recognizing the scale of the problem and second by rising to the challenge of putting in place the strategies required to reverse its consequences.

During last week’s symposium, I heard the heart-wrenching account of Valerie Twomey, a patient who was diagnosed with end stage renal failure and went through all available types of dialysis before finally receiving a life-saving kidney transplant in 2006. We are currently discussing EU level actions aimed at ensuring that people like Valerie have optimum chances of receiving a donor organ and that their donor organ fulfils safety requirements, through the dossier ‘Organ Donation and Transplantation: Policy Options at EU Level’. It is estimated that around 40 million people are affected by some form of kidney disease, and in the next 10 years this figure is set to double. We therefore desperately need to address not only the consequences of Chronic Kidney Disease but the urgent necessity to prevent this silent epidemic from growing at its current rate. This is what World Kidney Day serves to reinforce: the importance of prevention.
5. Media follow-up

Introduction

This document highlights media coverage results achieved following the EKHA and WKD Symposium Event held at the European Parliament, Brussels on the 4th March 2008. EKHA and WKD issued a press release to announce the Call to Action over BusinessWire.

Eight members of the medical trade press from France, Germany, Spain, Portugal and Austria attended the EKHA and WKD Symposium on the 4th March 2008, at the European Parliament. Two members of the pan-EU media also attended.

The following report includes the set of media coverage published to-date.

**EKHA/WKD Press Release**

**Chronic Kidney Disease - Europe's Silent Epidemic**

4 March 2008

*Business Wire*

Pan-European

**European Kidney Associations Call for Action in the European Parliament**

The European Kidney Health Alliance (EKHA) and World Kidney Day organisations today call for European health polices to support early identification and treatment of chronic kidney disease (CKD). The meeting, held in the European Parliament, marks the occasion of World Kidney Day, which this year will be on 13th March. An eminent panel of leading renal physicians and nurses, politicians and patient organisations highlighted the need for policies that reduce the burden of kidney disease for patients, physicians and society at large.

Speaking at the meeting, MEP Mrs. Frieda Brepoels said, “I strongly believe that the European Union can play a leading role in this regard. Efforts can be pulled together at European level by putting the prevention of kidney disease high on the European agenda. Furthermore, progress can be made by exchanging best practices between Member States and by improving existing technologies to detect kidney disease so as to assure that every European citizen has equal access to high-quality health care”.

In addition to the need to increase organ donation (a proposed Communication on ‘Organ Donation and Transplantation: Policy Actions at EU-Level’ is currently being discussed in the European Parliament), it is important to reduce the number of people developing CKD and renal failure. Recent data show that about 10% of the European population have some degree of CKD, but in some it progresses to become so severe as to require Renal Replacement Therapy (RRT) with dialysis or...
transplantation. The prevalence of CKD is set to rise because it is linked to the other modern epidemics affecting Europe: obesity, high blood pressure, diabetes and cardiovascular disease.

In most cases people are not aware of the fact that they have CKD. The incidence of people requiring RRT is about 125 cases per million per year. But this is just the tip of the iceberg if we refer back to the data that shows that 10% of the population has some degree of CKD.

“Public health measures to identify CKD at the earliest possible stage are central to preventing the rapid escalation of the CKD epidemic,” said Professor Andrew Rees, Chairman of EKHA. “As with all epidemics, decisive action needs to be taken first by recognising the scale of the problem and then by putting strategies in place that reverse its consequences. The EKHA brings together the combined expertise and experiences of patients and healthcare professionals to work towards preventing the consequences of CKD through better detection and management. We hope that events like today’s will help convince policy makers that we now need urgent action to make better kidney health a priority for Europe.”

“We can count the cost of kidney disease in financial terms, but the impact on the lives of patients as a result of late identification and diagnosis is incalculable,” comments Dr Donal O’Donoghue, the UK’s National Clinical Director for Kidney Care. “For example, in the UK, dialysis alone accounts for 2% of the total NHS budget and this is projected to double over the next five years. In comparison, the cost of implementing CKD prevention strategies can be modest.”

World Kidney Day (WKD) aims to raise awareness about the heavy burden of CKD on human lives. Celebrated worldwide on 13th March 2008, WKD offers a crucial, visible opportunity to inform and educate health policymakers, people who are at highest risk of CKD, and the general public that kidney disease is common, harmful and treatable. This year the EKHA and World Kidney Day have joined forces to hold this awareness-raising event in the European Parliament. The event is supported by Amgen and HemoCue.

**About CKD**

CKD is a progressive, irreversible condition characterised by kidney damage and impaired kidney function. There are five stages of CKD which are defined by the level of kidney function as measured by the estimated glomerular filtration rate (eGFR) and on the presence of low amounts of albumin in the urine, so called microalbuminuria. The lower the eGFR, the more advanced the CKD. Screening for eGFR and microalbuminuria is especially needed when there is an elevated risk of the disease, e.g. in patients with diabetes or hypertension (high blood pressure).

Many factors contribute to the progression of CKD. The most common causes are diabetes, hypertension, and generalised atherosclerosis. Especially when these factors are associated with the loss of albumin in the urine, renal function will rapidly progress to end stage renal disease. An ageing population coupled with the growing prevalence of obesity-related type 2 diabetes has increased the number of people with or at risk of CKD.

**About the EKHA**
The European Kidney Health Alliance (EKHA) is an alliance of not-for-profit organisations that represent the key stakeholders in kidney health issues in Europe. EKHA member organisations are CEAPIR (European Kidney Patients’ Federation), EDTNA/ERCA (European Dialysis and Transplant Nurses Association/European Renal Care Association), ERA-EDTA (European Renal Association - European Dialysis and Transplant Association), ISN (International Society of Nephrology). More information on www.ekha.eu

About World Kidney Day

World Kidney Day is a joint initiative of the International Society of Nephrology (ISN) and the International Federation of Kidney Foundations (IFKF). More information on www.worldkidneyday.org

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics. A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science’s promise by bringing safe and effective medicines from lab, to manufacturing plant, to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people’s lives. To learn more about our pioneering science and our vital medicines, visit www.amgen.com.

About HemoCue

HemoCue, a Quest Diagnostics company, is a leading global company in a field of diagnostics known as near patient, or point of care, testing. In 1982, HemoCue introduced the first system making accurate haemoglobin testing possible in near patient settings. The company also manufactures point of care tests for glucose and urine albumin. Quest Diagnostics acquired HemoCue in 2007. More information on www.hemocue.com

Notes to editors: About CKD and its symptoms

CKD generally progresses to ESRD when patients no longer have kidney function adequate to sustain life and therefore require dialysis (the artificial process of cleaning waste from the blood) or kidney transplantation. Without proper treatment to remove waste and fluids from the bloodstream (i.e. dialysis or kidney transplantation), CKD at this stage is fatal.

Anaemia is one of the most common symptoms of CKD, causing fatigue, shortness of breath, poor concentration, dizziness and pallor, which can have a major impact on a patients’ quality of life. Anaemia often develops early in CKD and, when patients do not have access to screening, these symptoms may be the first sign of CKD.
## Coverage Attained

<table>
<thead>
<tr>
<th>Publication</th>
<th>Date</th>
<th>Country</th>
<th>Type of media outlet</th>
<th>Headline</th>
<th>Article also appeared in</th>
</tr>
</thead>
</table>
| Business Wire    | 04.03.2008 | Pan-European  | Newswire             | Chronic Kidney Disease - Europe’s Silent Epidemic                       | • AOL Money & Finance  
                                                                             (Web Publication)  
                                                                             • CNBC.com  
                                                                             (Web Publication)  
                                                                             • Congoo.com  
                                                                             (Web Publication)  
                                                                             • DayLife  
                                                                             (Web Publication)  
                                                                             • EDTA-Oral-Chelation.com  
                                                                             (Web Publication)  
                                                                             • EIN News  
                                                                             (Web Publication)  
                                                                             • EuroInvestor  
                                                                             (Web Publication)  
                                                                             • European Agenda  
                                                                             (Web Publication)  
                                                                             • Individual.com  
                                                                             (Web Publication)  
                                                                             • Masteraging.com  
                                                                             (Web Publication)  
                                                                             • Medical News Feed  
                                                                             (Web Publication)  
                                                                             • Medcompare  
                                                                             (Web Publication)  
                                                                             • Medical News  
                                                                             (Web Publication)  
                                                                             • Medilexicon  
                                                                             (Web Publication)  
                                                                             • myFeedz.com  
                                                                             (Web Publication)  
                                                                             • Pharmalot  
                                                                             (Web Publication)  
                                                                             • RenalWEB  
                                                                             (Web Publication)  
                                                                             • SmartMoney  
                                                                             (Web publication)  
                                                                             • StreetInsider.com  
                                                                             (Web Publication)  
                                                                             • Topix  
                                                                             (Web Publication)  
                                                                             • Wikio.com  
                                                                             (Web Publication)  
                                                                             • Yahoo! Finance  
                                                                             (Web Publication)  
                                                                             • Zibb.com  
                                                                             (Web Publication)  
                                                                             • Wallstreet-online.de  
                                                                             (Web Publication)  |
<table>
<thead>
<tr>
<th>Source</th>
<th>Date</th>
<th>Location</th>
<th>Type</th>
<th>Article Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agence Europe</td>
<td>05.03.2008</td>
<td>Pan-European</td>
<td>Newswire</td>
<td>(EU) EP/HEALTH: Call to make kidney health a priority for Europe</td>
</tr>
<tr>
<td>Pharmaceutical Marketing Europe</td>
<td>26.03.2008</td>
<td>Pan-European</td>
<td>Business Trade</td>
<td>EU calls for CKD prevention</td>
</tr>
<tr>
<td>Vivir Mejor</td>
<td>26.03.2008</td>
<td>Spain</td>
<td>Web Publication</td>
<td>CKD, a silent epidemic</td>
</tr>
<tr>
<td>Vida Saudavel</td>
<td>13.03.2008</td>
<td>Portugal</td>
<td>Medical Trade</td>
<td>Entrevista a Paul E. de Jong - “As fundações têm um papel crucial”</td>
</tr>
<tr>
<td>Vida Saudavel</td>
<td>13.03.2008</td>
<td>Portugal</td>
<td>Medical Trade</td>
<td>Entrevista a Donal O’ Donoghue “A doação de órgãos em vida deve ser fomentada”</td>
</tr>
<tr>
<td>Le Quotidien du Medecin</td>
<td>12.03.2008</td>
<td>France</td>
<td>Medical Trade</td>
<td>Europe’s Silent Epidemic</td>
</tr>
</tbody>
</table>
Chronic renal diseases are becoming a priority on the European public health agenda. The Commission is preparing an action plan on transplants and a directive on the quality and safety of grafts (EU 9609). The European Parliament is also ready to put this question on its agenda, explained Frieda Brepoels (EPP-ED, Belgium) to a symposium on Tuesday 4 March at the European Parliament in Brussels, which was tackling the issue of “Chronic Kidney Disease - Europe's silent epidemic - a wake-up call”. This symposium was organised on the initiative of Ms Brepoels as part of the celebrations marking World Kidney Day on 13 March. Renowned nephrologists, psychologists, care assistants, politicians, doctors and representatives from patient organisations took part in the event where the Kidney Health Alliance (EKHA) and the World Kidney Association launched an appeal for European health policies to prevent and treat chronic renal diseases.

10% of the total population in Europe is affected by renal diseases or chronic renal insufficiency. Scientists at the symposium said that the only real treatment is transplants, the replacement of the diseased organ, for which donors are needed but who are not coming forward. Dialysis is therefore indispensable while waiting for a donor. Patients also have to tackle other obstacles: treatment costs are very expensive. Strict diets, sport, family support and regular check-ups are the basis of the programmes that enable transplant patients to build their lives again, as well as counselling support against depression and other psychological problems. In the future, the number of people affected by these diseases is expected to grow very rapidly. There is a link between these diseases and other modern ailments such as diabetes, high blood pressure, obesity and cardio-vascular disease. Prevention and early detection of the symptoms are therefore essential for being able to live healthy long lives. Scientists and medical experts said that it was essential that: 1) people understand what living with the disease really means, 2) the sufferer accepts his/her disease, 3) governments do not just help sufferers but also put prevention policies in place.

The chairman of the European Kidney Health Alliance, Professor Andrew Rees (Institute of Clinical Pathology, Faculty of Medicine, Vienna, Austria) stressed that renal disease represented a serious challenge for Europeans and care personnel. He explained that renal function was: - to filter blood and to eliminate excess water, salts and toxic waste; - to maintain the normal volume and chemical composition of the body ; - to make essential proteins that control blood pressure; - to preserve healthy bones; - and to prevent anaemia. The challenges posed by chronic kidney disease (CKD) are as
follow: - CKD is common and often initially symptomless; - people with severe CKD need dialysis or a kidney transplant; - transplantation is the best treatment but limited by donors. Professor Rees pointed out that the EKHA's objectives were to raise awareness of kidney disease, promote uniform standards of care, support research and development, cooperate with European organisations and facilitate exchange of information. Professor Rees concluded that they needed to “convince policy makers that we now need urgent action to make better kidney health a priority for Europe”.

Frieda Brepoels pointed out that during the next ten years the number of people suffering from cardiovascular disease and diabetes would double. Commenting on the communication “Organ Donation and Transplantation: Policy Actions at EU-Level”, the EP rapporteur declared: “I strongly believe that the European Union can play a leading role in this regard”. She stated that efforts had to be made at a European level in prevention, but also added that member states should exchange their experiences in this field and do everything they can to improve available technology for detecting the disease in time, and for guaranteeing all Europeans equal access to excellent health care services. Ms Brepoels also identified a significant obstacle to patients - the cost of dialysis and transplants.

Former hotel manager, Valerie Twomey, who has received a transplant, spoke about her own experience, the small daily steps taken, diet, sport, total support from the family and her life after the transplant. She concluded that the kidney transplant had saved her life and was simply the best way of treating sufferers. She called for people to fill in their kidney donor cards.

Karen Jenkins, renal nurse, explained how her working day was spent, as well as the difficulties encountered by kidney disease patients after organ transplants - such as depression because dialysis had to continue.

The professor of nephrology at the University Medical Center in Groningen, the Netherlands, Paul E. de Jong, looked at the economic repercussions of suffering from kidney disease. He gave some advice to the medical and paramedical world, “To enhance patients’ wellbeing to the maximum, albuminuria, blood pressure, cholesterol levels, whether or not there is diabetes, and the glomerular filtration rate have to be monitored”.

Doctor Donald Donoghue, Clinical Director for Kidney Care, Salford Royal NHS Foundation Trust, UK, set out public health strategies to identify chronic renal insufficiency and prevent complications. He set out the main prevention and treatment principles of renal diseases, “the most difficult being education, rehabilitation and encouragement”. He also said that the discovery of proteinuria (a defect in glomerular filtration) is good indicator of a chronic renal insufficiency risk factor. (G.B.)

**EU calls for CKD prevention**
26 March 2008
*Pharmaceutical Marketing Europe*
Pan-European

**Ahead of World Kidney Day, an expert panel has called for more action to prevent CKD**

European healthcare specialists and policy makers have announced that more needs to be done to help in the early diagnosis and treatment of chronic kidney disease (CKD).
A panel of medical experts, politicians, and patient organisations such as the European Kidney Health Alliance (EKHA) met to discuss the issue on March 4, marking World Kidney Day.

They highlighted the need for more policies to be put into action to help alleviate patients, society, and physicians of the burden of kidney disease. MEP Frieda Brepoels, present at the meeting, said: “I strongly believe that the European Union can play a leading role in this regard.

“Efforts can be pulled tighter at European level by putting the4 preventions of kidney disease high on the European agenda.”

CKD affects about 10 per cent of European citizens and in some cases can be severe enough to require renal replacement therapy (RRT).

Dr Donal O'Donoghue, the UK’s national clinical director for kidney care, said: “We can count the cost of kidney disease in financial terms, but the impact on the lives of patients as a result of late identification and diagnosis is incalculable.”

The European Parliament is advising that in addition to treatment polices, the number of people developing CKD should be reduced.

Other medical problems, on the increase across the continent, such as obesity, hypertension, diabetes and cardiovascular disease have been linked to the increasing prevalence of CKD.

Professor Andrew Rees, chairman of the EKHA, said:
“Public health measures to identify CKD at the earliest possible stage are central to preventing the rapid escalation of the CKD epidemic.”

“As with all epidemics, decisive action needs to be taken first by recognising the scale of the problem and then by putting strategies in place that reverse its consequences.”

The European Parliament is currently discussing proposals for a communication on ‘Organ Donation and Transplantation: Policy Actions at EU-level’, in order to promote the continued requirement for organ kidney donations.

**Articles in National Media**

**CKD, a silent epidemic**
26 March 2008
*Vivir Mejor*
Spain

Se estima que alrededor de 40 millones de personas en Europa están afectadas por algún tipo de enfermedad renal, y en los próximos 10 años esta cifra se doblará. El Parlamento Europeo puede desempeñar un papel importante en alentar a los Estados Miembros a adoptar con urgencia medidas...
decisivas. En primer lugar la magnitud del problema debe ser reconocido y segundo se deben poner en marcha estrategias para prevenir esta epidemia silenciosa actual.

La Alianza Europea para la Salud del Riñón (EKHA) y el Día Mundial del Riñón hicieron un llamamiento a políticas europeas de salud para apoyar la pronta identificación y el tratamiento de la enfermedad renal crónica (ERC). La reunión, celebrada en el Parlamento Europeo, con motivo del día Mundial del Riñón que se celebro el pasado 13 de marzo en todo el mundo, contó con el apoyo de la compañía de biotecnología AMGEN. Un eminente grupo de destacados médicos y enfermeras, políticos y organizaciones de pacientes, destacaron la necesidad de políticas que reduzcan la carga de la enfermedad renal en los pacientes, los médicos y la sociedad en general.

La señora Frieda Brepoels, diputada europea comentó:

"Creo firmemente que la Unión Europea puede desempeñar un papel de liderazgo en este sentido. Los esfuerzos se pueden juntar en el ámbito europeo, poniendo a la prevención de la enfermedad renal en lo más alto de la agenda europea. Además, se puede avanzar a través del intercambio de mejores prácticas entre los estados miembros y por la mejora de las tecnologías existentes para la detección de la enfermedad renal a fin de asegurar que cada ciudadano europeo tenga igual acceso a la atención sanitaria de alta calidad"

Además de la necesidad de aumentar la donación de órganos (una propuesta de la Comisión sobre "Donación y Trasplante de Órganos: Política de Medidas en la UE", se está debatiendo actualmente en el Parlamento Europeo), es importante reducir el número de personas en desarrollo de la Enfermedad Renal Crónica.

Los datos recientes muestran que alrededor del 10% de la población europea tiene algún grado de Enfermedad Renal Crónica, pero en algunos avanza hasta convertirse en tan severa que requieren terapia de reemplazo renal con diálisis o trasplante. La prevalencia de la Enfermedad Renal Crónica sube, ya que está relacionada con las demás epidemias que afectan a la Europa moderna: la obesidad, la hipertensión, la diabetes y las enfermedades cardiovasculares.

En la mayoría de los casos las personas no son conscientes del hecho de que han desarrollado la Enfermedad Renal Crónica. La incidencia de las personas que requieren de terapia de reemplazo renal es de unos 125 casos por millón por año. Pero esto es sólo la punta del iceberg, si nos remitimos de nuevo a los datos que pone de manifiesto que el 10% de la población tiene algún grado de Enfermedad Renal Crónica."Las medidas de salud pública para identificar la Enfermedad Renal Crónica en la etapa más temprana posible son fundamentales para la prevención de la rápida escalada de la epidemia de ERC", dijo el profesor Andrew Rees, jefe de EKHA. "Al igual que con todas las epidemias, la acción decisiva pasa por el reconocimiento de la magnitud del problema y, a continuación, poner en marcha estrategias que revertir sus consecuencias.

El EKHA reúne la combinación de conocimientos y experiencias de los pacientes y los profesionales de la salud para trabajar en pro de la prevención de las consecuencias de la Enfermedad Renal Crónica a través de una mejor detección y manejo. Esperamos que eventos como el de hoy ayudará a convencer a los encargados de formular políticas que ahora necesitamos acción urgente para hacer de la salud renal una prioridad para Europa.
"Podemos contar el costo de la enfermedad renal en términos financieros, pero el impacto en la vida de los pacientes como consecuencia de los retrasos en la identificación y el diagnóstico es incalculable", comenta el Dr Donald O'Donoghue, Director clínico de Kidney Care "Por ejemplo, en el Reino Unido, la diálisis por sí solo representa el 2% del total del presupuesto del NHS y este se doblará en los próximos cinco años. En comparación, el costo de la aplicación de estrategias de prevención de la Enfermedad Renal Crónica puede ser modesto".

El Día Mundial del Riñón (WKD) tiene como objetivo aumentar la conciencia acerca de la pesada carga de la Enfermedad Renal Crónica en vidas humanas. Celebrado en todo el mundo el 13 de marzo de 2008, fue una visible oportunidad de informar y educar a los encargados de formular políticas de salud, las personas que se encuentran en mayor riesgo de padecer de Enfermedad Renal Crónica, y el público en general de que la enfermedad renal es común, nociva y tratable. Este año la EKHA y el Día Mundial del Riñón han unido sus fuerzas para celebrar este evento de sensibilización en el Parlamento Europeo.
Sem Aviso
13 March 2008
Vida Saudável
Portugal

II 13 de Março de 2008 / Suplemento especial

SEM AVISO

Silenciosamente, a Doença Renal Crónica (DRC) afeta já cerca de 8% da população europeia, cerca de 40 milhões de pessoas. No passado dia 4 de Março, a EKHA-European Kidney Health Alliance, uma associação sem fins lucrativos criada em 2007, deu, em conjunto com a organização do Dia Mundial do Rim, um “grito de alerta”, no Parlamento Europeu, em Bruxelas. Por ser uma doença sem sintomas apaziguadores e hipódromos, a prática de alguns hábitos de vida desfavoráveis pode aumentar o risco de desenvolvimento de doenças renais. Divulgar esta epidemia, assim como garantir a igualdade de acesso a todos os europeus com DRC ao transplant de rins, são, para já, as prioridades estabelecidas pela EKHA.

Foi um dos mais ricos funcionários públicos, que destes tempos, um homem mau. Tem sido uma petúria, indiferente e insensível. Centenas de vezes foi verificado que tinha um delicado equilíbrio nerveou. Ainda assim, um de seus principais pontos é a sua capacidade de se adaptar a qualquer situação. Tem sido, no entanto, um homem muito reservado e desapegado. A sua vida social é limitada a poucos amigos de confiança, que o ajudam a lidar com suas dificuldades emocionais.

A doença renal crónica é uma doença grave que pode afetar a saúde e o bem-estar de pessoas de todas as idades e com diferentes níveis de saúde. A EKHA está a trabalhar para aumentar a compreensão e o apoio para as pessoas com DRC, encouraging them to adopt a healthy lifestyle and take advantage of available treatments. O trasplant de rins é uma opção terapêutica que pode melhorar a qualidade de vida de pessoas com DRC.

O Dia Mundial do Rim, 13 de Março, amanheceu com um ambiente abafado por causa do aumento dos esforços de transplante de rins. A EKHA considera que esta é uma altura ideal para chamar a atenção sobre um problema que a sociedade tem de enfrentar. O Dia Mundial do Rim é uma oportunidade para dar voz a um assunto que tem sido negligenciado por muito tempo. A EKHA espera que este Dia Mundial do Rim champeie a atenção e determine mudanças para garantir um futuro melhor para as pessoas com DRC.

Diagnóstico preciso Paul L. de Jong, director do Departamento de Nefrologia do Hospital Universitário e Clínica de Nefrologia, em Portugal, observa que a EKHA está a fazer este trabalho de forma eficaz e viver-se a transformar a relação entre a doença e a qualidade de vida. O Dia Mundial do Rim é uma oportunidade para que continuem a trabalhar em direção a melhores cuidados renais.

Para a EKHA, o Dia Mundial do Rim é uma oportunidade para chamar a atenção para o problema da DRC e para que as pessoas que têm esta doença recebam o tratamento adequado. O Dia Mundial do Rim é um dia de conscientização e a EKHA está a fazer este trabalho de forma eficaz e viver-se a transformar a relação entre a doença e a qualidade de vida. O Dia Mundial do Rim é uma oportunidade para que continuem a trabalhar em direção a melhores cuidados renais.

Para a EKHA, o Dia Mundial do Rim é uma oportunidade para chamar a atenção para o problema da DRC e para que as pessoas que têm esta doença recebam o tratamento adequado. O Dia Mundial do Rim é um dia de conscientização e a EKHA está a fazer este trabalho de forma eficaz e viver-se a transformar a relação entre a doença e a qualidade de vida. O Dia Mundial do Rim é uma oportunidade para que continuem a trabalhar em direção a melhores cuidados renais.

Para a EKHA, o Dia Mundial do Rim é uma oportunidade para chamar a atenção para o problema da DRC e para que as pessoas que têm esta doença recebam o tratamento adequado. O Dia Mundial do Rim é um dia de conscientização e a EKHA está a fazer este trabalho de forma eficaz e viver-se a transformar a relação entre a doença e a qualidade de vida. O Dia Mundial do Rim é uma oportunidade para que continuem a trabalhar em direção a melhores cuidados renais.
Entrevista a Paul E. de Jong - “As fundações têm um papel crucial”

13 March 2008
Vida Saudável
Portugal

Entrevista a Paul E. de Jong

“As fundações têm um papel crucial”

No Museu Royal des Beaux-Arts, em Bruxelas, um quadro de David Teniers, pintado no século XVII, demonstra um físico da vila a analisar o olho nu da urina de um paciente. The uroscopist serviu de exemplo a Paul E. de Jong, quando, no passado dia 4, apresentou no Parlamento Europeu, em Bruxelas, o seu estudo sobre a importância da deteção precoce de problemas nos rins. Apesar dos avanços da medicina, o Chefe do Departamento de Nefrologia da Universidade Central de Medicina, em Groningen, na Holanda, entende que ainda hoje a simples observação da urina pode fazer toda a diferença. Paul E. de Jong é ainda coordenador do PREVEND, onde decorre uma investigação que se centra no desenvolvimento de doenças renais e cardiovasculares.

Qual é a importância de um diagnóstico precoce? Existe uma verdade?

Se tiver uma doença crónica renal, especialmente um tumor de estirpe renal, não há saída mais eficaz que a detecção precoce e tratamento. Como é dito mais uma vez, “a doença renal não se conhece, não se vê e, quando se vê, já não se trata.” É um lema norteador dos seres humanos. O melhor é a detecção precoce. Quando se trata de doenças renais, o sucesso é a prevenção. É pela prevenção que se traz sucesso. É por isso que a prevenção é fundamental.

Os sintomas da doença renal são muitas vezes confundidos com outros problemas, como a disfunção urinária, do mesmo modo que os sintomas de uma doença renal em fase avançada podem ser confundidos com uma disfunção urinária ou uma doença renal em fase avançada. É por isso que a prevenção é fundamental.

O que é a doença renal e qual é o seu papel na urina?

A doença renal é uma doença que afeta o rim, que pode ocorrer em qualquer idade, mas é mais comum em adultos. O rim é uma parte importante do nosso corpo e desempenha um papel crucial na nossa saúde.

Quando o rim é afetado, pode haver uma variedade de sintomas, como a disfunção urinária, a disfunção renal e a disfunção hepática. É por isso que a prevenção é fundamental.

O que é a disfunção urinária e qual é o seu papel na urina?

A disfunção urinária é uma doença que ocorre quando o rim não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção renal e qual é o seu papel na urina?

A disfunção renal é uma doença que ocorre quando o rim não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção hepática e qual é o seu papel na urina?

A disfunção hepática é uma doença que ocorre quando o fígado não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção gastrointestinais e qual é o seu papel na urina?

A disfunção gastrointestinais é uma doença que ocorre quando o trato digestivo não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção cardiovascular e qual é o seu papel na urina?

A disfunção cardiovascular é uma doença que ocorre quando o coração e as artérias não funcionam corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção cerebral e qual é o seu papel na urina?

A disfunção cerebral é uma doença que ocorre quando o cérebro não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção muscular e qual é o seu papel na urina?

A disfunção muscular é uma doença que ocorre quando os músculos não funcionam corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção endócrino e qual é o seu papel na urina?

A disfunção endócrino é uma doença que ocorre quando os hormônios não funcionam corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção respiratória e qual é o seu papel na urina?

A disfunção respiratória é uma doença que ocorre quando o sistema respiratório não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.

O que é a disfunção renal e qual é o seu papel na urina?

A disfunção renal é uma doença que ocorre quando o rim não funciona corretamente. É um problema que afeta muitas pessoas e pode levar a uma variedade de sintomas, como a disfunção urinária e a disfunção renal.
Europe’s Silent Epidemic

12 March 2008
Le Quotidien du Medecin
France

Two associations, the EKHA (European Kidney Health Alliance) and the World Kidney Day Organisation, believe that the European Union has a major role to play in promoting the early detection of chronic renal insufficiency and in encouraging organ donation.

At a recent colloquium at the European Parliament, two associations, the EKHA (European Kidney Health Alliance) and the World Kidney Day Organisation, brought together a panel of specialists, doctors and representatives of patient associations to discuss what has become a major problem: chronic renal insufficiency, a "modern epidemic" in Europe. The latest data reveal that this disease, taking into account all stages, now affects close to 10% of the European population. And that is a figure which is increasing regularly throughout Europe and the industrialised nations. Several factors may contribute to the development of renal insufficiency, which is characterised by five stages according to the glomerular filtration rate, a measure of the kidneys’ ability to eliminate creatinine. The most frequent factors are diabetes, high blood pressure, glomerulonephritis, polycystic kidney disease and obesity. Prevalence increases with age, and is higher amongst men than women.

Few symptoms. The development of chronic renal insufficiency is silent, and therefore insidious: there are few functional signs to indicate kidney damage. This explains why the disease is often diagnosed late,
when irreversible damage has already occurred. “Early detection of kidney damage is the only way to stop or slow down further development towards renal insufficiency. Undetected and allowed to progress to a very advanced stage, chronic renal insufficiency is fatal. The only treatments are dialysis and transplantation. But for the time being, the majority of patients with chronic renal insufficiency die before receiving either”, emphasised Prof. Paul E. de Jong.

Whilst the detection of microalbuminuria is a warning sign, particularly in diabetics, monitoring the rate of creatinine clearance is the best indicator of renal function. As soon as creatinine clearance falls below 90 ml/min, the patient requires medical attention in order to safeguard the functional capacity of the remaining nephrons. As it progresses, renal insufficiency is rapidly accompanied by metabolic problems, a weakening of the immune system and anaemia. Prevention of these complications in patients diagnosed with renal insufficiency is essentially based on controlling high blood pressure with drugs to block the renin-angiotensin system, on a low-protein diet, on good control of hyperlipidemia and on effective treatment of the anaemia present in 50% of cases (Aranesp®, darbepoetin alfa, from Amgen). Starting these treatments can deliver “a significant reduction in the slope of creatinine clearance loss, or even a remission”.

During the colloquium, the EKHA and the World Kidney Day Organisation were keen to insist on the need for the European Union to take action to define a real strategy to drive the creation of networks aimed at the diagnosis of renal insufficiency, to make the public at large more aware of this “silent epidemic”, and to develop a European policy on organ donation. “In end-stage chronic renal failure, kidney transplantation is the only effective treatment which allows the patient to preserve a good quality of life, but there is a cruel lack of organs”, they explain with regret.

Dr Martine Duron-Alirol

*Brussels, colloquium entitled “Chronic Kidney Disease Europe’s Silent Epidemic”. Participants included Prof. Andrew Rees, Chairman of EKHA, Frieda Brepoels, reporting on “Organ Donation and Transplantation – Policy Actions at EU-Level”, Prof. Paul E. de Jong (University Medical Center Groningen) and Dr Donal J. O’Donoghue (UK). Supported by Amgen and HemoCue.

World Kidney Day Prize
To mark this day, and with the help of the pharmaceutical companies Roche and Gambro, the Kidney Foundation will launch an appeal for candidates for the World Kidney Day Prize. The award is intended, for the second consecutive year, to help a young researcher conduct work in the field of kidney disease. The prize will be presented to the winner at a meeting of the Society of Nephrology (Société de nephrology) and the French-speaking Society of Dialysis (Société francophone de dialyse) next autumn.
Chronic Kidney Disease: Prevention Turns into Healthcare Policy Making Issue in Europe

1st February 2008

Hospital Post Europe
Germany

Chronic Kidney Disease
Prevention Turns into Healthcare Policy Making Issue in Europe

In the context of the World Kidney Day early last March, an information briefing took place at the European Parliament in Brussels. The "European Kidney Health Alliance" (EKHA) as well as the organizers of the World Kidney Day had initiated this top-level event in cooperation with pharmacists and manufacturers. The aim was to raise the issue of increasing incidence and - up to now - insufficient prevention of chronic kidney disease into a healthcare policy topic at European level.

The multifactorial, but clearly visible, epidemic of chronic kidney disease (CKD) as a threatening, and rapidly increasing, problem is a major threat to the European Union. The currently occurring high prevalence of CKD is an emerging health issue, which carries the potential of major health consequences and increases healthcare costs. The European Parliament's efforts, and the implementation of healthcare policies, are key to addressing this issue.

As the Eighth Framework Programme, the 2008-2013 horizon has been set aside for the development of policies to prevent and treat chronic diseases, particularly those associated with lifestyle choices. The European Commission has launched the "Health for All" agenda, which aims to improve health outcomes and reduce health inequalities across Europe. This agenda recognizes chronic diseases as a major challenge, and the prevention of chronic kidney disease is an important component.

The European Union has taken steps to address this issue, including the adoption of the "European Strategy for Sustainable Health" in 2008, which aims to improve the health of the European population and reduce the burden of chronic diseases. The strategy includes measures to improve the quality of life of people with chronic diseases, to promote healthy lifestyles, and to improve access to healthcare services.

In summary, the prevention and management of chronic kidney disease is a critical issue for the European Union, and the implementation of effective policies is essential to address this challenge. The European Commission and the European Parliament are committed to working together to ensure that the prevention and treatment of chronic diseases are given the priority they deserve.

Contact:
35342 Schneitz
Communications Manager
Agence France-Presse, Munich, Germany
Tel: +49 89 94581-1802
Fax: +49 89 94581-3632
www.repondees.de
Erst Symptomfrei, dann Ernst
1 April 2008
Management & Krankenhaus
Germany
6. Conclusion

This report highlights some of the successes of the EKHA World Kidney Day profiling events.

Specifically, the following results have been achieved:

- Notion of a ‘silent epidemic of Chronic Kidney Disease’ launched at EU level
- A call from an MEP to other MEPs that urgent action must be taken to address the silent epidemic of Chronic Kidney Disease in Europe
- The creation of a permanent forum (MEP Group for Kidney Health) in which members of the kidney community may exchange views with MEPs on issues of key importance
- Support of the MEP Group for Kidney Health by numerous MEPs
- Profiling of EKHA as an authoritative voice on kidney health topics amongst EU policy-makers, politicians, other healthcare organisations and EU and national media

Excellent media coverage has ensured that these results have been disseminated to key players at EU level as well as some Member States.

These important results have been achieved at a particularly relevant time – during the drafting of the EU legislation on Organ Donation and Transplantation.

The main follow-up activity to the event is the consolidation of the MEP Group for Kidney Health and ensuring as many MEPs as possible support the objectives of the Group. It may be possible for the MEP Group to be formed into a formal Parliamentary Intergroup during the next legislature (starting mid 2009), and this will be discussed in due course.