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- Task Delegation Versus Task Shifting in the Indonesian Health Service
- Infectious Diseases

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Cover painting:

The printing depicts the Ikaho Onsen (hotspring) in Japan. It is said that the hotspring was found in the 2nd Century or 7th Century, good to digestive diseases, rheumatism, neuralgia, paralysis, bruises, etc. A westerner on the right edge may be Dr. Erwin Von Baelz, a German medical doctor, who was said to have praised the Ikaho Onsen for its health benefits. This printing was made by an ukiyo-e artist, Kunichika Toyohara (1835–1900).

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Council Down Under

For many years, the mid-year WMA Council session of the year (held in April or May of each year) has been held in the Geneva area, for reasons of economic prudence and the will to connect it to the World Health Assembly (WHA). However the results have been mixed. Yes, it has been more economic to stay close to the WMA office in the Geneva area, but not substantially so – either in terms of price or value for the money. The Geneva area is known for its very high prices, and when it comes to meeting services, there is ample room for improvement. The opportunity for WMA delegates to take advantage of being in Geneva for the Council session in order to attend the WHA has not generally been a huge success. Over the last several years, not more than a handful of Council attendees have stayed on for the WHA.

Most important, we have learned that remaining in the Geneva area where dozens of associations and organizations are holding meetings at the same time limits the amount of visibility of the WMA Council session. Starting in 2007, the WMA ended the stationary status of the Council Session, venturing back out into the world again in alternating years, first to Berlin, then to Tel Aviv in 2009, and this year to Sydney. These venues generated increased attention to the Council sessions, attracting more members and observers than those held in the Geneva Area.

For a membership-based organization this active participation is crucial. Returning the hosting role to our member associations has raised their interest and commitment to our Council meeting and has attracted public attention as well. The Australian Minister of Health, Nicola Roxon, leveraged the occasion of the Council session to launch her new law proposal on plain packaging of cigarettes – and this on World Health Day, April 4th. There was no better place for this ambitious health initiative than a stage prepared by the

global organization of physicians. A brave new concept, and the first effort to legally codify a requirement for plain packaging, the initiative was immediately backed by the Council, which is recommending that General Assembly make this part of the WMA policy.

The Australian and the New Zealand Medical Association used the meeting to stage a Leadership Day immediately before the Council, taking advantage of the presence of a large number of medical leaders from around the world who had come to attend the WMA Council Session. And, last but not least, the Governor General issued a rare invitation for a reception to WMA Council Members, highlighting the importance Australia places on the work of its physicians.

Returning to Australia after 15 years was also a tribute to our colleagues in Australia, New Zealand and the Pacific. Despite the fact that they must travel the farthest for most of our meeting venues, they have proven among our most faithful, committed members, with many delegates from the Pacific region serving the WMA as Council members, officers, advisors and volunteers. The election in his home country of Dr. Mukesh Haikerwal as WMA's new Chair of Council was a happy coincidence, and the natural result of his exceptional engagement in the WMA during the past years.

Finally, the WMA got its junior doctors network going. With an active group, strongly backed by young physicians from the region, this is a promising initiative to keep the WMA inter-generational. What has been missing – a global platform for doctors in training – is now available within the Associate Membership of the WMA. The WMA is proud to have this new platform under its roof.

Dr. Otmar Kloiber WMA Secretary General

New Policy Against the Tobacco

*Speech during World Medical Association Council Meeting,
Sydney 7th April 2011*

by The Hon. Nicola Roxon,

Australia's Federal Minister for Health and Ageing



Nicola Roxon

It gives me great pleasure to welcome you to Sydney and to Australia and to address your conference.

You've come to a wonderful country for this council meeting and you've come at an exciting time. Australia is not just a beautiful and welcoming country, it has a strong health system too.

But we acknowledge the strength of our health system will not last, faced with the challenges of demography and chronic disease without reforming key parts of the system.

No doubt many of these challenges are shared in your countries too, and will be covered at length in your conference.

At the start of my second term as Australian Health Minister I can share with you how the Gillard Government is facing these

challenges and how some of our reforms are being implemented.

I'd like to focus first on three areas that provide a sample and flavour of our reforms:

- (1) our determination to shift the centre of gravity in our health system more heavily to primary care;
- (2) financing and accountability – particularly in a federated country to benefit consumers; and
- (3) modernising health service delivery through technology.

(1) Our Government has put a lot of focus on heavily supporting our GPs, and primary care more broadly. We strongly believe this is better for patients but also helps us better manage the growing cost of high tech and expensive interventions.

The OECD reports that Australia has an overnight hospitalisation rate of 163.4 per 1,000 population compared to half that at 84 per 1,000 population in Canada, 137 in New Zealand and 134 in the United Kingdom.

And in the decade to 2007–08, the number of hospital admissions in Australia rose by 37 per cent – that is an unsustainable figure.

So doubling our GP training numbers, incentivising general practice in communities that are undersupplied, providing infrastructure funding through GP super clinics and to existing practices to expand multidisciplinary work and training in primary care are all part of our drive to boost primary care.

Our next steps are establishing Medicare Locals – to help co-ordinate disparate and dispersed private practices and to identify and fill gaps within those local communities. Our vision is that primary care within local communities will grow a voice to match the strength and voice of local hospitals.

(2) Another big area of our reform focuses on better financing and better accountability for health expenditure across all jurisdictions – but also better information for consumers that can flow from this.

Whilst some of our financing problems are unique to the Australian federal system – our determination to establish a national efficient price and to have national performance benchmarks are not.

We already launched our “MyHospitals” website which advises, hospital by hospital, emergency department waiting time and elective surgery waits. These are two areas where we are investing more to change the way we do things and get improved and timely access for consumers.

(3) Our Government has been very determined to unleash the potential of technology – to become one of the world's leading digital economies by 2020. Our national broadband network will allow users internet access at speeds the envy of the world. This network will enhance the care we can provide, especially in remote parts of the country or where our specialists are distant from those who need their care.

We've committed to a personally controlled electronic health record for all Australians.

This will mean that patients won't have to tell their medical history to every new health professional that they see when they are travelling across the country or when they move. And, by the way, we're pretty mobile – more than 331,400 Australians moved interstate in 2009–10.



With patient permission, health professionals that they consult will be able to access their history – not just saving a lot of time but also preventing errors and saving lives. For example, medication errors alone currently account for 190,000 admissions to hospitals in this country each year. Avoiding mistakes on medications, allergies and reactions will be a huge benefit, especially for older people.

In a similar vein, from 1 July this year we will have a national after hours GP hotline – initially by phone, but with the potential to grow to an online video conference from July 2012, talking to a doctor from your own home.

Also from 1 July 2011 Medicare rebates will be payable for specialists consultations across the internet – for those unable to access face to face consultations, this will liberate them from the tyranny of distance. We want to tackle the brutal truth that too many rural and regional Australians don't get the care they need if it involves hours, or often days, of travel.

I hope these few examples of our broad reforms are of interest and give you a sense of the breadth and flavour of reforms that are designed to significantly improve the health of Australians and reinforce our system for the future.

The main focus of my presentation today, though, is on our Government's passionate determination to tackle preventable disease. This is a clear challenge of the future, and a clear component of our need to help make the health system sustainable.

As you know in this audience, many of the major diseases – cancer, cardiovascular disease and diabetes – are potentially avoidable.

In fact it's reliably estimated that risk factors contribute to more than 30 per cent of Australia's total burden of death, disease and disability.

A particular challenge is that a vast and rising proportion of our burden of illness and mortality is due to conditions which develop over some time and which could be avoided or prevented, often by relatively cheap and low-tech interventions.

It needs local and national initiatives to educate the public about health risks and to support healthy lifestyles and disease prevention.

The Government is making the nation's largest investment in preventative health – \$872 million over 6 years. These investments stretch from work in local communities such as cooking classes, community gardens and walking groups that are particularly disadvantaged, to workplace initiatives, a focus on children, and our new campaign "swap it, don't stop it."

As part of this work, I want to focus on one area where Australia has made good progress, where we are committed to the long haul and have important news to share.

The area is tobacco control

Smoking is one of the most damaging preventable causes of ill health and death in Australia.

It causes a range of cancers and chronic diseases well known to you all – because you have to treat them.

It currently kills about 15,000 Australians each year, and costs Australia's economy and society about \$31.5 billion dollars a year.

Globally, the World Health Organisation estimates that 5 million people die from tobacco-related illness each year, most of them in low- and middle-income countries. This is expected to reach 9 million by 2030.

As you all know the message is blatantly clear: if we reduce smoking rates we can

radically reduce the burden of cancer and chronic disease.

Australia has had success over the years.

Australia recognised the malign influence of cigarettes early and has made significant progress in reducing the smoking rate. Over the years the Commonwealth, State and Territory Governments together have prohibited advertising, removed sponsorships, restricted point of sale displays, and outlawed smoking in restaurants and many public places.

Thanks to increasing efforts by governments, the proportion of Australians aged 14 years and over who smoke each day has fallen from 30.5 per cent in 1988 to 16.6 per cent today – one of the lowest in the world.

However about 3 million Australians continue to smoke every day – so there is more that can and will be done.

Smoking is also more concentrated among people in disadvantaged groups, and entrenches disadvantage by entrenching ill health. Naturally a Labor government is concerned by the harm caused in these groups.

For example, the adult daily smoking rate among Australia's Aboriginal and Torres Strait Islander people – at 47 per cent – is more than double the whole of population smoking rate and is estimated to contribute 17 per cent of the large life expectancy gap between Indigenous and other Australians.

When we first came to office our Government committed to closing the gap in life expectancy between Indigenous and non-Indigenous, but we **cannot** do that without reducing their smoking rates.

That's why the government is making a record investment in helping Aboriginal and Torres Strait Islander communities to tack-



le smoking – through indigenous tobacco workers and the first ever advertising campaign for the indigenous community.

The daily smoking rate among other disadvantaged groups also remains unacceptably high. It is around 32 per cent among unemployed people and a similar rate for people with mental illness.

Around 50 per cent of men in some culturally and linguistically diverse communities smoke. And tragically, over 40 per cent of pregnant teenagers.

I am very strongly of the view that we in government and you in the medical profession have a responsibility to do all that we can to reduce smoking and reduce the pain and suffering it causes.

That is why the Labor Government has taken the lead, at home and internationally, on this important issue.

We have set targets to reduce the national daily smoking rate to 10 per cent or less of the population by 2018 and halve the smoking rate for Indigenous Australians.

We are approaching these targets by moving simultaneously on a comprehensive range of fronts –

- In April last year we increased the excise on tobacco products by 25 per cent, effectively increasing the price of a packet of 30 cigarettes by over \$2.
- We have legislation in the Parliament to restrict internet tobacco advertising in Australia, bringing it in line with restrictions on advertising in other media.
- We are making record investments in anti-smoking social marketing campaigns, including tough new advertisements linking smokers' cough with lung cancer and the first ever national indigenous anti-smoking advertisement. These campaigns are being extended to specifically target high risk and hard to reach groups including pregnant women, people with

mental illness, prisoners and people from culturally and linguistically diverse backgrounds.

- In February we provided heavy subsidies for nicotine replacement therapies, as an aid to quitting smoking, on the Pharmaceutical Benefits Scheme.

These are important initiatives to keep Australians healthy, but there is more that we can do.

Plain Packaging

So, today I am pleased to announce a world first initiative.

Today I am releasing the world's first plain packaging laws. I'm releasing a consultation paper and the exposure draft of the government's legislation on plain packaging – the world's toughest legislation on tobacco promotion.

Plain packaging will remove one of the last remaining forms of tobacco advertising. It will restrict tobacco industry logos, brand imagery, colours and promotional text.

The packaging will be mandated to appear in a standard dark olive brown colour which has been chosen based on research for the lowest appeal to smokers.

The only thing to distinguish one brand from another will be the brand and product name in a standard colour, standard position and standard font size and style.

Most of the front of the package – 75 per cent, up from the current 30 per cent – will be covered with updated graphic health warnings, adding to the current 90 per cent coverage on the back of the pack.

As you see from these examples, all vestiges of marketing messages have disappeared; the pack now becomes a stark reminder of the health effects of smoking.

Manufacturers will also be permitted to include certain anti-counterfeiting design features that do not run counter to the public health objectives of the measure, to minimise any impact on the illicit trade in tobacco products.

There is strong evidence to support this tough approach.

The National Preventative Health Taskforce, commissioned by the Australian Government in 2008 as a key part of our reform plans examined the growing body of evidence on plain packaging and concluded – “there can be no justification for allowing any form of promotion for this uniquely dangerous and addictive product which it is illegal to sell to children” – including on the packaging.

The taskforce said plain packaging would:

- increase the impact of health warning messages;
- reduce the ability of tobacco companies to mislead consumers into believing that some cigarettes are less harmful than others;
- make cigarettes look less attractive – for adults and children;
- and reduce the appeal and desirability of smoking generally.

But it's not just our national taskforce which believes this. Plain packaging has been discussed in various countries and forums over the past 25 years, and is backed by the World Health Organisation.

Our legislation will give effect to commitments under the WHO Framework Convention on Tobacco Control, which was adopted by the World Health Assembly on 21 May 2003 and entered into force on 27 February 2005.

The Framework Convention has since become one of the most widely embraced treaties in UN history. To date, more than 170 countries have ratified it.

The Conference of the Parties to the Framework Convention agreed in 2009 that plain packaging should be considered as part of comprehensive bans on tobacco advertising and as a way of ensuring that consumers are not misled about the dangers of smoking.

Australia is the first signatory and the first country in the world to commit to implementing these recommendations on plain packaging.

We intend the legislation to commence on 1 January next year, with the requirement that all products on sale comply with the new laws within six months.

To meet these timelines, I am today releasing a consultation paper together with the plain packaging design and an exposure draft of the legislation for 60 days of public consultation.

I will then introduce the *Tobacco Plain Packaging Bill 2011* during the winter sitting of Parliament.

I expect Big Tobacco to fight these steps tooth and nail.

They are already doing everything in their power to fight the Government politically and legally. This legislation will be no exception.

They have established a group to front their activities – The Australian Retailer's Association.

The Association ran a multi-million dollar advertising campaign in the last Federal election against the Government.

They claim plain packaging “won't work” – but if it won't work, why would they pour millions of dollars into opposing it?

It's simple – a reduction in smoking rates is a reduction in profits, a reduction in bonuses.



Money is no object to them because they are fighting to keep a very profitable global front – hawking their killer products across the developing world.

They know that if Australia is the first, we will not be the last.

We might be breaking ground, but we are on firm ground. Others will follow.

Then tobacco companies will be forced to scurry around the world targeting other countries with their insidious products.

A global business, causing global harm deserves a global response.

I believe therefore that Governments and the medical profession must continue to work together to fight tobacco.

I believe there is an imperative on people like me, in government, and people like you, in the medical profession, to act to do whatever we can to reduce the smoking rate.

I therefore ask you when you return to your own country, to urge your government to act in the fight against tobacco – to take further steps to implement commitments under the WHO Framework Convention.

It's true that our nation and the world have other important health issues, all of which require attention.

But reducing smoking – compared to most of those problems – is relatively simple and incredibly cost effective.

It doesn't require a new workforce, huge investment of dollars or new health technology.

It does require a great deal of political will and determination to withstand the tobacco lobby.

I consider myself very fortunate to be part of a government that has that determination. But I can also assure you that it feels a lot less lonely when you have strong support from people like yourselves.

I hope that when your return home you will press for plain packaging in your country and for it to become commonplace around the world.

Because tobacco smoking is one health disaster that we can stub out, if we have the will.



Mukesh Haikerwal

Frank Ulrich
Montgomery

Sir Michael Marmot



Rosanna Capolingua



Jón Snædal

188th WMA Council Meeting

Sydney, Australia 7th–9th April 2011

Council Meeting

The 188th Council session (7–9 April) was opened by the Secretary General, Dr. Otmar Kloiber at the Westin Hotel, Sydney, Australia. He welcomed new members of Council and said apologies had been received from the Japanese physician members, who were heavily involved in the aftermath of the Japan earthquake.

The first business was the election of the Chair of Council, the Vice Chair and the Treasurer. Dr. Mukesh Haikerwal (Australia) was elected unopposed as Chair of Council, replacing Dr. Edward Hill (America) who stood down after four years in the post. Dr. Masami Ishii (Japan) was re-elected Vice Chair of Council and Dr. Frank Ulrich Montgomery (Germany) was elected Treasurer.

Dr. Wonchat Subbachturas, the President, gave a report on his activities and his visits since October. He referred to the various natural disasters around the world and the work that medical professionals were doing to treat the victims, and he asked delegates to stand in silence in respect of those who had lost their lives. He also spoke about attacks on physicians in conflict zones and said that medical professionals must be protected at all times, although the profession must not take sides or be part of these conflicts.

The WMA then welcomed the Hon. Nicola Roxon, Australia's Federal Minister for Health and Ageing, to open the conference. In her address, she spoke about the health challenges facing the world and current reforms being undertaken in Australia – shifting the centre of gravity to primary care, addressing the issues of finance and accountability and modernising the health service through new technologies.



Wonchat Subbachturas

Jose Luiz
Gomes Do Amaral

Dana Hanson



Otmar Kloiber



J. Edward Hill

She then announced a major new policy on tobacco control with proposed legislation for plain packaging for cigarettes. This was the latest step in the fight to reduce the number of smoking related deaths in Australia, which currently totalled 15,000 lives a year. She said this development was a world first and the proposed new plain packs had been designed to have the lowest appeal to smokers. She appealed to WMA delegates to urge their governments to take similar action.

Dr. Kloiber then presented the secretariat's report on the WMA's activities since the last meeting.

Antimicrobial Resistance

Speaking on what was World Health Day, with its theme of antimicrobial resistance, Dr. Kloiber said that WMA policy on the issue was far ahead of its time and everything forecast in its 15-year-old Statement had come true. The world was now facing a disaster, dealing with resistance on a large scale, killing many people round the world. He announced that, together with the Center for the Study of International Medical Policy and Practices at the George Mason University, USA, and the International Society for Microbial Resistance, an online training course on antimicrobial drug resistance had been set up and could be accessed on the George Mason University website.

Non Communicable Diseases

As part of the WHO's Global Action Plan on Non Communicable Diseases the WMA, together with the members of the World Health Professions Alliance (WHPA), had developed a campaign to



Hisashi Tsuruoka

prevent NCDs by targeting the common risk factors and the social determinants of health. In the run up to the United National Summit on NCDs in September 2011, the WHPA would begin with an advocacy and awareness raising campaign aimed at health professionals, patients and government.

Multi Drug Resistant Tuberculosis Project

As part of the Lilly MDR-TB partnership, the WMA had printed a version of the TB refresher course for physicians and transferred it into an interactive TB refresher online course available free of charge from the webpage. The course had been nominated by the United States Center of Disease Control (CDC) as an educational highlight and had received an award. To complete the online tools two virtual patient cases on TB and MDR-TB had been developed with INMEDIA.

The WMA had also become a member of the Stop TB Partnership Human Rights Task Force.



Yoram Blachar



Robin J. Menes

Alcohol

In line with the WMA Statement on Reducing the Global Impact of Alcohol on Health and Society, the secretariat had monitored the drafting process of the WHO's Global Strategy.

Counterfeit Medical Products

The WMA and the members of the World Health Professions Alliance had stepped up their activities on counterfeit medical issues and developed an Anti-Counterfeit campaign with an educational grant from Pfizer Inc. and Eli Lilly. The basis of the campaign was the 'Be Aware' toolkit for health professionals and patients to increase awareness of this topic and provide



Robert Ouellet



Torunn Janbu

practical advice for actions to take in case of a suspected counterfeit medical product. Two regional WHPA Counterfeit Medical Products workshops had been organised in Costa Rica and Nigeria.

Health and the Environment

On climate change, lobbying activities had been undertaken following the Cancun Summit in 2010, inviting medical associations to write to their governments to ask that health be brought to the forefront of the global warming debate.

Joint action was also being explored to protect human health and the global environment from the release of mercury.

Social Determinants of Health

Following the decision in Vancouver, a Workgroup had been established to draw up a draft policy on the initiative of the British Medical Association. The group was also monitoring the preparation of the World Conference on Social Determinants of Health organised by WHO in Rio de Janeiro from 19 to 21 October 2011.

Health systems

An international conference to review the effect of the global economic crisis had been held in Riga, Latvia in September 2010. Entitled "Financial Crisis – Implications for Health Care – Lessons for the Future", the conference revealed, on one hand, a staggering vulnerability of some health care systems to the economic situation and documented that it was the weakest members of society that suffered the most when a crisis hit the health care system. On the other hand, examples demonstrated that health care systems, when appropriately protected, did actually support the overall economy.



Dongchun Shin



Cecil B. Wilson



Paul-Emile Cloutier



Vivienne Nathanson



Heikki Pälve



Ramin Parsa-Parsi

The WMA had contributed to WHO action in helping governments to monitor and report about their health workforce and had been represented at the World Economic Forum's Industry Partnership Strategists Meeting for Health in New York in September 2010.

Prior to the OECD Health Ministerial meeting in October, the OECD Forum on Quality of Care took place and the WMA was invited to present the physicians' perspective on this issue.



Fiona Davies

Positive Practice Environment Campaign (PPE)

The WMA continued its close involvement in the Positive Practice Environment Campaign, the global five-year campaign spearheaded by WHPA members together with the International Hospital Federation, to ensure high-quality health workplaces for quality care. The PPE Partners and secretariat were working with national health professional and hospital organisations in Uganda, Morocco and Zambia to develop country projects and improve their practice environments. The campaign had organised a workshop during the 2nd Global Forum on Human Resources for Health in Bangkok in January 2011 with participants from more than 25 countries.



Alex Mark Well



David Mountain

Migration & Retention

The WMA had taken part in drafting the WHO Guidelines on Retention Strategies for Health Professionals in Rural Areas, aimed at attracting and retaining health care professionals in rural areas. And in January 2011, the Global Health Workforce Alliance had organised the 2nd Global Forum on Human Resources in Health in Thailand, where the WMA helped organise a highly successful skills-building workshop on Enhancing Personal Resilience for a Sustainable Health Care Workforce.



Ardis D. Hoven

Workplace Violence in the Health Sector

The WMA had taken part in the planning process of the Conference on Workplace Violence in the Health Sector, held on 27–29 October 2010 in Amsterdam. Ms. Leah Wapner, Secretary General of the Israel Medical Association, presented a paper on the issue.



Peter Foley

Education & Research

The World Federation for Medical Education had started a discussion process about the future role of the physician, starting with an expert panel in March that included representatives of academia, WHO, the WMA and international and regional medical organisations.



Roderick McRae

Patient Safety

The WMA was a member of the WHO reviewing committee to develop a Multi-Professional Patient Safety Curriculum Guide, after the WHO had defined patient safety as a major global priority in health care. To deliver safe health care, clinicians required training in the discipline of patient safety, which included an understanding of the nature of medical error, how clinicians themselves could work in ways that reduced the risk of harm to patients, techniques for learning from errors, and how clinicians could harness quality improvement methods to improve patient safety in their own organisations.



Michael Bonning



Mark Peterson

Caring Physicians of the World Initiative Leadership Course

Invitations would be sent out to NMAs for the fourth Leadership Course planned to be held in Singapore on 20–25 November 2011. The curriculum included training in decision-making, policy work, negotiat-



Julio Trotschansky



Paul Ockelford

ing and coalition building, intercultural relations and media relations. The courses were made possible by an unrestricted educational grant provided by Pfizer, Inc. This work has been supported by the WMA Co-operating Center – the Center for Global Health and Medical Diplomacy at the University of North Florida.



Serafin Romero

Speaking Book

The WMA launched the speaking book on clinical trials during the General Assembly in Seoul 2008, as part of a collaborative effort with the South African Medical Association, the SADAG (South African Depression & Anxiety Group) and the Steve Biko Center for Bioethics in Johannesburg and the publisher “Books of Hope”. The speaking book on clinical trials in English-Hindi & Telugu was launched at the 2009 General Assembly in India. The project was made possible by an unrestricted educational grant provided by Pfizer, Inc. In March 2010, Books of Hope presented a speaking book on the dangers of smoking, targeting a low literacy community. Each of the books was expected to be received by an average of 27 people as a study had shown. Thus the first 5000 books had the potential to impact 50,000 to 100,000 people.



Jose Manuel Silva

Human Rights

A seminar took place on 1–2 November 2010 in Turkey aimed at contributing to the implementation of the right to health and strengthening the independence of the medical profession in Middle East countries. The seminar was organised by the Norwegian Medical Association, the Human Rights Foundation of Turkey, the Turkish Medical Association, the WMA and the International Federation of Health and Human Rights Organisations. Participants included representatives from health organisations from Egypt, Iraq, Israel, and Palestine together with the organisers of



Luis Mazzuocolo



Joel Hellstrand

the event. Issues raised during the event were related to access to health care, such as health care for undocumented migrants, problems in accessing health care facilities in occupied territories, lack of resources and migration of health care personnel due to violence.

During the year the WMA had written to the Iranian authorities about the cases of Dr. Arash Alaei and Dr. Kamiar Alaei who were sentenced to six and three years’ imprisonment respectively, for “cooperating with an enemy government”.

In February 2011, the WMA had sent letters to the ministers of health and of interior in Bahrain expressing deep concerns about attacks on health professionals that were unprovoked and in breach of international law enforcement standards.

Women and Children and Health

The WMA had been invited to be involved in a WHO initiative to develop “guidelines for a health-care response to intimate partner and sexual violence”. The overall aim of this initiative was to elaborate a policy framework intended to improve health sector responses to sexual violence by assisting decision-makers to design health policy and service measures that would provide comprehensive, sensitive and quality care to victims of sexual violence.

Medical Ethics

At the 2008 General Assembly, the Declaration of Helsinki had been amended and there was a debate on the use of placebo in medical research. If a proven effective intervention existed, the Declaration of Helsinki allowed the use of placebo controls, though only in very limited circumstances. However this opening raised some concerns. In order to analyse the use of placebos in



Kate Baddock



Marcos Gomez-Sancho



Ignacio Carrasco De Paula



Ruben Tucci



Thomas Flodin



Marie Wedin

medical research a WMA working group was formed. It was acknowledged that the same ethical questions might arise with any control group that received a treatment less than the “best current proven intervention” (which was currently required by the Declaration). The overriding question of the placebo controversy appeared to be: *To what extent and under which circumstances was it ethically acceptable to provide a control group with an intervention less effective than the best current proven treatment in a clinical trial?* This included a placebo control as well as a control with a second standard or no treatment. The problem was aggravated by the fact that in many circumstances it was not conclusively known which was the “best proven” treatment. Furthermore the question remained, whether the different economic circumstances in the different parts of the world had to be considered in the Declaration or not. Most prominent were the questions: *Whether the use of placebos, or interventions less effective than the best current proven treatment had to be seen differently on the existence of different economic backgrounds?* and *What were the requirements to post-trial access to care and how should they be dealt with?*



Ming-Been Lee



Yung Tung Wu

The workgroup would discuss these questions at a conference to be held in July 2011 in Sao Paulo, Brazil.

Medical and Health Policy Development

The Center for the Study of International Medical Policies and Practices, George-Mason-University, one of the WMA's Co-operating Centers, had invited the WMA to participate in the creation of a scientific platform for international exchange on medical and health policy development and in 2009 the first issue of a scientific journal, the World Medical & Health Policy was published by Berkeley Electronic Press as an online journal. It could be accessed at: <http://www.psocommons.org/wmhp>.



Mads Koch Hansen



Cristina Lumby Rasmussen

World Health Professions Alliance

After ten years of successful collaboration, the four main health professions – physicians, nurses, pharmacists and dentists – had shown that working in collaboration instead of along parallel tracks, benefited the patient and health care system. Now the WHPA was seeking to find best practice models of similar inter-professional cooperation on a national and local level. A working group would research how a best practice model in collaborative practice could be defined and was looking for examples worldwide.



Hakan Wittgren



Chung-Shao Lin



Bente Fogh

Medical Organisations in Arabic Countries

The WMA was continuing to reach out to medical associations in Arabic countries and was pleased to have participation from Egypt, Iraq and Palestine at its conference “Right to Health as a Bridge to Peace in the Middle East”.

Dr. Ramin Parsa-Parsi (Germany) reported on discussions that had taken place in Bahrain, which were now on hold as a result of the unrest in that country. The Council then heard two oral reports about the natural disasters in Japan and New Zealand.

Mr Hisashi Tsuruoka, a staff member from the Japan Medical Association, reported on the earthquake, tsunami and nuclear plant accident in Japan. He said it was very difficult to obtain accurate information about the disaster and its victims, as it was estimated that about 240,000 evacuees were staying in about 2,600 shelters over a wide area. No-one knew how many people were missing. The number of dead was estimated at that time to exceed 30,000. In addition, many medical institutions had collapsed. He spoke about the work of medical disaster teams and the help being offered by the Japan Medical Association and teams from many other countries.



Poul Jaszczak



Jeff Blackmer



Merwi Kattelus

The nuclear power plant accident in Fukushima was aggravating the situation and efforts to contain and resolve the problem would be ongoing over the coming months and years.

Mr Tsuruoka said, however, that he believed Japan would recover in a much shorter period that they were currently expecting.



Bo Kyung Kang

Dr. Peter Foley (New Zealand) reported about the earthquake which he said had wiped out the core of Christchurch, New Zealand. He thanked international colleagues for their help.

Medical Ethics Committee

Dr. Torunn Janbu (Norway) was re-elected Chair of the committee.



W. Paul Rijksen

Ethical Organ Procurement

Dr. Vivienne Nathanson (United Kingdom), Chair of the Workgroup, gave an oral report on work in progress. She said the group had considered a first draft of possible principles and had decided that the British Medical Association would review existing policy to see if it was up to date and fit for purpose, and if there were gaps.

It hoped to present to the next meeting a set of principles in terms of the ethical procurement of organs and a background document explaining the principles.



A.C. Nieuwenhuijzen Kruseman

Other issues to be covered would include commercialisation, trading in organs, paying donors, international transport of organs, and sending patients abroad for treatment that was illegal.

End-of-Life Medical Care

In a lengthy debate, the committee considered and amended a **Proposed Declaration**



Ajay Kumar

on End-of-Life Medical Care and background document.

Dr. William Silvester (Australia), an intensive care specialist and national director of the Respecting Patient Choices Programme in Australia, introduced the debate, speaking about the importance of advance care planning. He said this was not about euthanasia but about giving patients a say about their care, and advanced care planning empowered people.

The committee agreed to include in the introduction to the document the phrase 'palliative care at the end of life is part of good medical care' and in a discussion on pain and symptom management, it agreed to insert the words 'the primary aim is to maintain patients' dignity and their freedom from distressing symptoms'.

Further amendments were agreed following a detailed debate on the development of care plans for patients approaching the end of life and the way in which a patient's preferences should be initiated and handled.

The committee approved the amended Declaration for consideration by Council, which later agreed to forward it to the General Assembly for adoption.

It was decided to 'file' the background document to the policy.

The Ethics in Palliative Sedation

A **Proposed Declaration on the Ethics in Palliative Sedation** was introduced by the Spanish Medical Association (Consejo General de Colegios Médicos de España) exploring the boundary between palliative sedation and active euthanasia. Following a brief debate it was agreed to circulate the document to NMAs for comment.



Jaroslav Blahos



Brendan Sharw



Deon Schoombie



Tatjana Radosavljevic



Prijo Sidipratomo



Elie Chow-Chine

The Ethics of Placebo Control in Clinical Trials

Dr. Ramin Parsa-Parsi (Germany), Chair of the Workgroup on Placebo in Medical Research, gave a report from Workgroup and said that the planned expert conference (13–15 July) would now be relocated from Tokyo, Japan to Sao Paulo, Brazil because of the Japanese earthquake. The conference would debate the general wording of paragraph 32 of the Declaration of Helsinki, the use of placebos in resource poor settings, the positions of international organisations and the 'reasonable availability' approach.



Miguel Roberto Jorge

The Declaration of Tokyo

A proposal was discussed to revise the **Declaration of Tokyo on Guidelines for Physicians Concerning Torture** to include the development of a monitoring and reporting mechanism to permit auditing states' adherence to the guidelines. Delegates suggested that NMAs should offer support for physicians in difficult situations, including helping individuals to report violations of patients' health rights and physicians' professional ethics in custodial settings.



Roberto Luiz d'Avila

The committee approved the document, which Council later agreed to send to the General Assembly for adoption.



Peter W. Carmel

Child Subjects

A Proposed Statement on Ethical Principles for Medical Research on Child Subjects, produced by Dr. James Appleyard (UK), was considered and after a brief debate it was decided to file the document.



Trond Markestad

Social Media

A Proposed Statement on the Professional and Ethical Usage of Social Media, pre-

pared by Dr. Marianne Maman, an associate member, was considered.

Dr. Kloiber said the WMA currently had no policy on the use of social networks. Physicians were using social networks, sometimes for communicating with their patients. Although everyone was in favour of using technology to improve health care and communications, social networks had a number of problems. For instance, the information being exchanged was being exploited for commercial purposes.

So physicians had to take special caution. Many NMAs were now using these social networks to communicate with their members. But the WMA had to examine these issues more closely. He suggested that the WMA should use the expertise of the new junior doctors' network to consider this issue.

Dr. Michael Bonning, a junior doctor from Australia, said that if they as doctors wanted to be able to reach their patients and work more effectively among themselves, then the social media networks were some of the challenges they had to deal with. He said the junior doctors' network would be happy to help the WMA draw up a policy on this issue.

Dr. Peteris Apinis (Latvia) said that in his country pharmaceutical companies were using these networks to approach doctors about their products.

It was agreed to circulate the proposed Statement and to set up a working party, comprising members of the Committee and the junior doctors' network, to draft a new policy. Council later approved this recommendation.

Bio Banks

A Proposed Resolution on Physicians' Ethical Responsibilities Regarding Bio



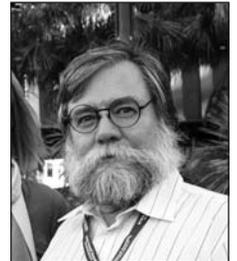
Gilbert Pioud



Pedro Barbosa Way Oliveira



Michael D. Maves



Hernan Reyes



Alarico Rodriguez de Leon



Geir Riise

Banks was briefly considered and it was decided to postpone the issue until the revision of the WMA policy on health databases.

Misuse of Drugs for Execution

An emergency Resolution expressing deep concern about the misuse of drugs for the purpose of capital punishment was proposed by *Dr. Ulrich Montgomery* (Germany).

He said this followed various approaches that had been made to countries for the export of thiopental to the USA for capital punishment.



M W Sonderup

Dr. Peter Carmel (USA) said the American Medical Association had clear policy preventing physicians from participating in executions, but he suggested that this specific matter concerning drugs be postponed until the AMA had investigated the situation.

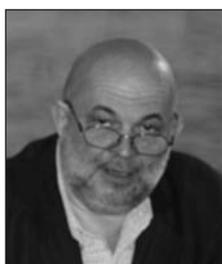


Evgeny Mashkovskiy

After a debate it was decided to postpone consideration of the Resolution and establish a Workgroup to examine the question of whether the WMA should develop a policy statement opposing the use of capital punishment.

Finance and Planning Committee

After the committee had approved the minutes of the last meeting, an election for Chair took place to fill the vacancy left by *Dr. Haikerwal's* election as Chair of Council. Two candidates were nominated – *Dr. Leonid Eidelman* (Israel) and *Dr. Robert Ouellet* (Canada) – and after a ballot, *Dr. Eidelman* was elected. However he was not able to be present because of his leadership of a physicians' strike in Israel, and so the meeting was chaired by *Dr. Haikerwal*.



Sergey Puzin



Norman Mabasa

Membership Dues

A report on Membership Dues Payments for 2011 was tabled and agreed. *Dr. Kloiber* proposed a new baseline of membership dues to create a stable income situation and to have a concrete means of determining whether a constituent member was in good standing.

The committee accepted the proposal and recommended it to Council, which later forwarded it to the General Assembly for approval and adoption.

Financial Statement

Mr A. Hällmeyer, the Finance Advisor, gave a detailed presentation on the pre-audited financial statement for 2010, stating that the positive trend of recent years had continued.

The audited Financial Statement was recommended for approval by Council, which later also adopted it.

Strategic Plan

The committee received an oral report from *Dr. Ouillet*, who led a Workgroup on the format for a strategic plan for 2011–2015. He emphasised how important it was for members to respond to the survey sent out to them and he also referred to surveys being sent to outside bodies.

WMA Meetings

The committee reviewed future meetings and dates – Prague, Czech Republic for the Council meeting in April 2012 and Bangkok, Thailand for the General Assembly in October 2012. It was agreed that the theme of the scientific session for the General Assembly in Bangkok should be 'Megacity – Megahealth'. This was later approved by the Council.



Bjorn Oscar Hoftved



Steven Hambleton



Andrew Pesce



Nikolay Izmerov



Evgeny Achkasov



Clarisse Delorme

Network in Disaster Medicine and Public Health

A proposed new **Statement on Disaster Preparedness and Medical Response** was considered. During the debate that followed it was recognised that the role of the WMA was not to provide or co-ordinate practical assistance in the event of disasters, which was complex work being done by specialised relief organisations.

Rather it was to provide policy support and opportunities for information exchange and learning for national medical associations and to engage in advocacy for disaster preparedness on a national level.

Dr. Ardis Hoven (US) said the WMA should build on the platforms already in place around the world and perhaps use its website to link to existing resources throughout the world, while *Dr. Janbu* (Norway) said the Workgroup should look at possibility of facilitating a network, with information about courses and existing organisations that physicians might join.

Dr. Nathanson (UK) suggested the WMA might put online a document to help doctors understand the kinds of skill sets and qualifications they needed for work in disaster zones. Often doctors were not sure whether their skills would be useful. It was agreed that the mandate of the Workgroup should be extended to take these issues into consideration and that the Statement be circulated to NMAs for comment.

Greening of WMA Meetings

Dr. Mads Koch Hansen (Denmark), leading a Workgroup on greening WMA meetings, gave an oral report on the need for the WMA to reduce its carbon footprint, saving both money and human resources.

He suggested reducing the use of paper by using the WMA website for accessing

documents, making more use of buses and sharing taxis for travelling to conferences and greening the WMA building with better use of energy.

His report was supported by several speakers and *Dr. Nathanson* (UK) said the British Medical Association had saved a six figure sum by reducing photocopying.

Dr. Kloiber said the time had come to go paperless, but having both paper and web access would not be a cost saving. It was decided to ask Council to take action on the issue.

Membership

An application was received from the Trinidad and Tobago Medical Association to be admitted into WMA membership and it was decided to recommend this to Council, which later agreed to forward the application to the General Assembly for adoption.

Governance

The committee discussed further consolidation of the bylaws, including issues such as voting rights for the President, President-elect and immediate Past President and the termination of a President's office.

Junior Doctors' Network

Dr. Kloiber reported that the first draft had been drawn up of terms of reference for setting up a junior doctors' network as part of the Associate Membership. He said further work on the terms of reference was required, but he was pleased with the progress that had been made.

Dr. Bonning said there was no current formal process for junior physicians to interact globally. He and his colleagues believed that the WMA was the best vehicle for achieving this.



Annabel Seebom



Julia Seyer



Sunny Park



Nigel Duncan



Tania Goodacre

Joelle Balfe



Elmar Doppelfeld



Roderic Dennett



Lamine Smaali



World Medical Journal

The editor of the Journal, *Dr. Apinis*, presented his report and said he had three proposals – to promote and publicise the WMJ to the members of NMAs, to be more active in writing articles about the NMAs' activities and to encourage Council members to become involved in writing articles.

Socio-Medical Affairs Committee

The committee approved the minutes of the last meeting, and then elected unopposed Sir Michael Marmot (UK) as the new Chair.

Health and the Environment

The committee considered an oral report from *Dr. Ouellet* (Canada), Chair of the workgroup on health and the environment. He said the group had consulted Dr. Larry Frank, a Canadian expert on the area of the built environment, based on a document provided by the WMA office. The group had decided that for the time being the WMA was not in a position to draw up policy in this specific area for lack of expertise. The document was based on North American situations and did not meet the international requirements of the WMA, including in developing countries. The group decided to send the document to the Workgroup on social determinants for review and incorporation in a broader social context. The document would then be circulated and posted on the website. It was then decided that the group had accomplished its work and should now be dissolved.

Declaration of Edinburgh

A Proposed Revision to the Declaration on Prison Conditions and the Spread of Tuberculosis and Other Communicable Diseases was considered.

Dr. Janbu (Norway) asked whether the phrase 'physicians working in prisons have a duty to follow national public health guidelines, particularly concerning the mandatory reporting of infectious and communicable diseases', could be a problem where national guidelines were not in accordance with WMA policy. *Dr. Nathanson* said the workgroup had assumed that any NMA which believed their national guidelines were unacceptable would be lobbying their government to get those guidelines changed. **The committee agreed that the document should be amended and sent to Council for forwarding to the General Assembly for adoption.**

Chronic Disease

The committee considered a **Proposed Statement on the Global Burden of Chronic Disease**, which *Sir Michael Marmot* said was a hugely important issue. It was on the WHO agenda and the UN General Assembly would debate the issue later in the year. *Dr. Cecil Wilson* (US), Chair of the Workgroup, said this lent urgency to getting the paper approved.

The paper had been circulated and included solutions on prevention, primary care, medical care and health infrastructure, with recommendations for governments, NMAs, medical schools and individual physicians.

It was agreed to send the document to Council, who later agreed to forward it to the General Assembly for adoption.

Violence in the Health Sector

A Proposed Statement on Violence in the Health Sector was proposed by *Dr. Yoram Blachar* (Israel), who said that violence against physicians was becoming a real problem.

This was caused in part by understaffing problems, unreal expectations, dissatisfaction with health services and the role of the media and television in creating imaginative expectations for the best medical result. He said it was vital to adopt a policy of zero tolerance accompanied by relevant legislation.

Dr. Nathanson said that violence in the health sector was a problem in all parts of the world and she suggested expanding the document to add in more areas to help less developed parts of the world.

Dr. Janbu questioned the document's proposal that physicians should have the right to refuse to treat previously violent patients, except in emergency situations. She found this a very difficult statement.

Dr. Nathanson said that the UK had a zero policy to violence. But it was important that alternative provisions were available before physicians were able to refuse to treat a violent patient.

It was agreed to send the document to Council.

Social Determinants of Health

A debate took place about the **Proposed Statement on Social Determinants**, described as the conditions in which people are born, grow, live, work and age and the societal influences on these conditions. *Sir Michael Marmot*, Chair of the Workgroup on the issue, said the World Conference on Social Determinants, organised by WHO, would take place in October in Rio de Janeiro, Brazil. He was part of the organising committee and the WMA would be part of the conference.

It was agreed to send the document to Council, which later agreed to forward it to the General Assembly for adoption.

Armed Conflicts

The Norwegian Medical Association presented a **Proposed Statement on the Protection and Integrity of Medical Personnel in Armed Conflicts**. *Dr. Janbu* said the paper highlighted the lack of a systematic reporting of violent incidents concerning physicians. This made it very difficult to know what strategy to adopt to prevent attacks if they did not know the extent of the problem. She said she was surprised that no international body had this responsibility. It was agreed to circulate the document for discussion.

Tobacco-Derived Products

The American Medical Association brought to the meeting a **Proposed Revision of the WMA Statement on Health Hazards of Tobacco and Tobacco-Derived Products**. *Dr. Ardis Hoven* (US) said the tobacco industry were heavily marketing new forms of tobacco-derived products with sticks, mints and other nasty things to make their products more appealing and acceptable. Smokeless tobacco was also being aggressively marketed and targeted towards young people. There were also electronic cigarettes available in convenience stores and on the internet. The WMA had to address these new forms of tobacco by revising its policy. There needed to be a stronger statement recommending banning the production, distribution and sale of tobacco-derived products that resembled candy.

She said that a separate policy statement would be drafted by the American Medical Association on electronic cigarettes following further investigation about their status.

Dr. Nathanson wanted to see something added on plain packaging following the announcement made that week by the Australian Government.

Dr. Peteris Apinis (Latvia) presented another proposed revision to classify smoking in the

vicinity of children and pregnant women as violence against children, as smoking significantly reduced children's life expectancy and impaired their quality of life.

Dr. Rosanna Capolingua (Australia) said that in her home state of West Australia they had banned smoking in cars where children were present, and the police actually policed that.

But several speakers were unsure about using the language of 'violence against children' in the document and the Latvian Medical Association was invited to come back with a further proposal. It was agreed to send the document to Council, which later agreed to forward it to the General Assembly for adoption.

Pain Relief

Dr. Nathanson presented a **Proposed Resolution on the Access to Adequate Pain Treatment**. She said that around the world a lot of patients in pain were being denied access to adequate pain killers because of government policies and lack of availability. She asked that the document drafted by the British Medical Association and others be sent out for consultation. This was agreed.

Ivory Coast

An emergency resolution on the situation in the Ivory Coast was presented by *Dr. Kloiber* at the request of the Ivory Coast Medical Association. He said that as a result of civil war in the country the European Union had decided to implement sanctions which were affecting the import of drugs leading to a shortage. The Resolution (see separate box) urged the EU to take steps immediately to ensure the delivery of medical supplies to the Ivory Coast in order to protect the life and health of the population.

The committee agreed to forward the Resolution to Council for approval.

Resumed Council Meeting

The Council considered the Medical Ethics Committee report.

Social Media

It was agreed that the proposed Statement on the Professional and Ethical Usage of Social Media be referred to a Workgroup comprising members of the Junior Doctors' Network and two representatives of the Medical Ethics Committee.

Capital Punishment

The Council agreed that a Workgroup be set up to examine the question of whether the WMA should develop a policy statement opposing the use of capital punishment. Included on the Workgroup will be *Dr. Haikerwal*, *Dr. Dana Hanson*, *Dr. Yoram Blachar*, *Dr. Cecil Wilson*, *Dr. Otmar Kloiber* and representatives from Denmark, the UK and Uruguay.

Dr. Wilson (US) referred to the earlier debate in the committee which indicated that the US Government had solicited the drug thiopental. On a preliminary investigation his understanding was that the issue of thiopental used came to light because the US Government's drug enforcement agent had seized supplies of thiopental from two states, Tennessee and Kentucky, because of the assumption they had been illegally obtained.

So these were supplies that were already in the state and they had not been solicited. They were just sold to these two states and the US Government had not solicited their import.

The Council approved the Medical Ethics Committee report

The Council considered the Finance and Planning Committee report.



Disaster Medicine and Public Health

The Council agreed to expand the mandate of the Workgroup.

Primary Care Conference

Dr. Rosanna Capolingua spoke about holding a conference on primary care to showcase the primary care physician and emphasise the general practitioner being the leader of the health care team. This was cost effective and efficient for the patient. *Dr. Hanson* said that the term 'primary care' should go wider than just family practice. Council noted the comments.

Russian Conference

The Council debated a proposal by the Russian Medical Society for a WMA Conference to be held in Moscow in 2012 on the relationship between physicians and the pharmaceutical industry. Several speakers questioned who would pay for the conference, while others expressed reservations about the suggested topic and proposed their own ideas.

The Council decided that the secretariat should discuss the proposal further with the Russian Medical Society and report back to the General Assembly in October.

Georgian Medical Association Award

The Council debated a proposal from the Georgian Medical Association to sponsor an annual prize for outstanding physicians internationally with the help of the WMA. After several speakers expressed their doubts about the proposal, the Council decided not to pursue the proposal. The Council approved the Finance Committee report

The Council considered the Socio-Medical Affairs committee report.

Declaration of Edinburgh

Council agreed to amend the proposed revision to the Declaration on Prison Conditions and the Spread of Tuberculosis and Other Communicable Diseases to read 'physicians working in prisons have a duty to follow national public health guidelines where these are ethically appropriate'.

It was agreed to forward the document to the General Assembly with the recommendation that it be adopted.

Violence in the Health Sector

A further debate took place about the document's proposal that physicians should have the right to refuse to treat previously violent patients, except in emergency situations. Several speakers questioned whether this was the right approach and the Council eventually decided to refer the document back to the committee for further consideration.

Global Health Data Charter

Dr. Haikerwal said that many groups were involved in health with very little knowledge about the subject, and they viewed the issue as one of expense. The WMA had been asked by the World Economic Forum to participate in the development of a Global Charter on Health Data and then to co-sign the Charter. But he had a number of concerns about the Charter which was not in line with WMA policies and was not based on a patient-centred view of the issues.

Having heard his comments, Council agreed not to sign the Charter, but to further engage with the World Economic Forum to advocate for an improvement of the Charter, and to report back to Council if changes occurred.

Tobacco-Derived Products

Dr. Apinis (Latvia) repeated the proposal he put to the committee to classify smoking in the vicinity of children and pregnant women as 'violence'. *Dr Ardis Hoven* (US) said she was concerned about the use of the word 'violence'. The objective should be not to punish but to educate people. They needed to change the environment through parenting information and in other ways and this opportunity would be better served by getting away from using words such as 'violence'.

After further debate, Council decided to amend the proposed revision of the Statement on Health Hazards of Tobacco and Tobacco-Derived Products to add that the WMA should advocate the enactment and enforcement of laws to 'protect children from passive smoking'.

Ivory Coast

Council voted to approve the emergency motion reaffirming WMA policy on economic embargoes and health (see box).

Advocacy Plan 2011/12

Dr. Hanson reported on the advocacy plan for 2011/12 with its five headings – human resources for health, health and the environment, individual health, human rights and patient safety. The Council approved the Socio-Medical Affairs Committee report.

World Health Assembly 2011

Ms Clarisse Delorme and *Dr. Julia Seyer* reported on the forthcoming World Health Assembly and highlighted several topics, including climate change, the protection of health personnel in armed conflicts, counterfeit medicines, non communicable diseases

Nigel Duncan, WMA Public Relations Consultant



Jane Halton



George Margelis



Ron Trent



Katie Allen



Mike Bainbridge

Council Resolution Reaffirming the WMA Resolution on Economic Embargoes and Health

The World Medical Association is deeply concerned about reports of potential serious health impacts resulting from economic sanctions imposed by the European Union against Ivory Coast leader, Laurent Gbagbo, and numerous individuals and entities associated with his regime, including two major ports linked to Gbagbo's government. The sanctions aim to severely restrict EU-registered vessels from transacting business with these ports, which could inhibit the delivery of necessary and life-saving medicines.

The WMA Council reiterates the following position from the WMA Resolution on Economic Embargoes and Health:

All people have the right to the preservation of health; and, the Geneva Convention (Article 23, Number IV, 1949) requires the free passage of medical supplies intended for civilians.

The WMA therefore urges the European Union to take steps immediately to ensure the delivery of medical supplies to the Ivory Coast, in order to protect the life and health of the population.



Francis Sullivan



Richard H Osborne



Ross Boswell



Brendan Nelson



Peter Flaming

Medical Leadership Seminar: The view from Down Under

On the Tuesday before the WMA Council opened, the Australian and New Zealand Medical Associations held a joint seminar on Medical Leadership at the Westin Hotel, Sydney.

Among the speakers were the BMA President, Professor Sir Michael Marmot, His Excellency The Hon. Brendan Nelson, Australia's Representative to NATO and WHO, Dr Peter Foley, Chair of the New Zealand Medical Association, and Jane Halton, Secretary of Australia's Department of Health and Ageing.

Dr. Andrew Pesce, President of the Australian Medical Association, spoke about the importance of doctors remaining at the centre of the debate on health reform and Sir Michael Marmot spoke about social justice, which he said was right at the centre of what they as doctors were doing. He said there was much current interest in well being and happiness, but health was a better definition of well being than happiness. Health inequalities began at the beginning of life and that's where they had to start their interventions.

He spoke about the impact of unemployment on young people, the need for a progressive tax system and the importance of addressing the whole of society and not just focusing on the most deprived.

Addressing Harmful Use of Alcohol is Essential to Realising the Goals of the UN Resolution on Non-Communicable Diseases (NCDs)

Provided by Global Alcohol Policy Alliance

Why a GAPA Brief on NCDs?

In May 2010 the UN General Assembly (GA) passed Resolution 64/265 which called for the convening of a high-level meeting of the GA in September 2011 in New York on the prevention and control of non-communicable diseases [1]. This resolution and related documents have stressed the need to recognise the primary role and responsibility of governments to respond to the challenges of NCDs, but also the responsibility of the international community in assisting member states, particularly in developing countries, to generate effective responses [2]. Among the various NCDs, cardiovascular diseases, cancers, chronic respiratory diseases and diabetes have been singled out for attention [2].

This resolution reflects the growing recognition of NCDs as a major threat to development in developing countries. Furthermore, the resolution is seen as having reframed the global discussion about NCDs into emphasising broader social and environmental drivers of NCDs rather than unhealthy choices made by individuals [3]. It comes with the hope of garnering multi-sectoral commitment and facilitating action on an unprecedented scale to address NCDs.

What is the Brief's purpose?

1. To put forward the case that addressing harmful use of alcohol is essential in moving forward the agenda to meaningfully im-

pact on NCDs by highlighting the strong linkages between alcohol and several of the main NCDs of interest and also to indicate the availability of interventions that have been documented to have an impact on reducing the burden of alcohol on public health.

2. To highlight the relevance of the call made by the World Health Assembly in 2010 for countries to implement effective responses to address harmful use of alcohol and to urge that greater support be given to the WHO to enable it to carry out its mandate in terms of the *Global Strategy to Reduce the Harmful Use of Alcohol* [4] and allied WHO resolutions.

3. To specifically feed into a report being prepared by the Secretary-General of the UN (in collaboration with Member States and WHO) by May 2011 that will serve as input to the preparatory phase for the September 2011 high-level meeting and also feed into an informal interactive hearing with NGOs, civil society organisations, the private sector and academia that is to be held no later than June 2011 and which also aims to provide input into the September meeting.

What is the link between alcohol use and NCDs?

Alcohol has been identified as a leading risk factor for death and disability globally, accounting for 3.8% of death and 4.6% of

disability adjusted life years (DALYs) lost in 2004 [5, 6]. Alcohol was found to be the 8th highest risk factor for death in 2004 (5th in middle-income countries and 9th in high-income countries). In terms of DALYs lost in 2004, alcohol ranked 3rd highest (1st in middle-income countries, 8th highest in low-income countries and 2nd highest in high-income countries). The role of alcohol (and particularly heavy alcohol use and having an alcohol use disorder) in NCDs has been given increasing recognition. For example, at the recent NGO conference in Melbourne on health and the Millennium Development Goals (MDGs) during a session on NCDs, along with tobacco, diet and lack of exercise, alcohol was recognised as one of four major common risk factors [7]. In terms of NCDs, alcohol has been particularly linked to cancer, cardiovascular diseases (CVDs) and liver disease. Alcohol has also been clearly linked to mental disorders and in some systems mental health is seen part of NCDs. However, for the purpose of this Brief we shall not comment on this linkage [5].

Cancer

- Nine leading environmental and behavioural risks (higher body mass index, low fruit and vegetable intake, physical inactivity, tobacco use, alcohol use, and unsafe sex, urban and indoor air pollution, and unsafe health-care injections) have been estimated to be jointly responsible for 35% of cancer deaths [6].
- In 2007 the International Agency for Research on Cancer asserted that there was sufficient evidence for a causal link between alcohol and cancer of the oral cavity, pharynx, larynx, oesophagus, liver, colon, rectum, and female breast [8]. All these cancers showed evidence of a dose-response relationship, that is, the risk of cancer increased steadily with greater volumes of drinking [9].
- The strength of this relationship varies for different cancers. For example, with regard to female breast cancer, each ad-

ditional 10 g of pure alcohol per day (roughly one standard drink*) is associated with an increase of 7% in the relative risk (RR) of breast cancer whereas regular consumption of approximately 50g of pure alcohol increases the relative risk of colorectal cancer by between 10% and 20%, indicating that the association is stronger for female breast cancer [9]. The relationship of average consumption to larynx, pharynx and oesophagus cancer on the other hand would be markedly higher than the relationship to both breast and colorectal cancer (about about a 100% to 200% increase for an average consumption of 50g pure alcohol per day) [8].

- Among the causal mechanisms that have been indicated for some cancers is the toxic effect of acetaldehyde which is a metabolite of alcohol [9].
- Of all alcohol-attributable deaths in 2004, about 20% come from cancer, 19% for males and 25% for females. When considering both the burden from death and disability, cancer is estimated to comprise approximately 9% of all alcohol-attributable DALYs lost, 8% for males and 14% for females [5].

Cardiovascular diseases (CVDs)

- Eight risk factors (alcohol use, tobacco use, high blood pressure, high body mass index, high cholesterol, high blood glucose, low fruit and vegetable intake, and physical inactivity) jointly account for 61% of loss of healthy life years from CVDs and 61% of cardiovascular deaths. These same risk factors together account for over three quarters of deaths from ischaemic and hypertensive heart disease [6].

* In the UK 1 standard drink is 7.9 g of ethanol, in Australia it is 10 g, in South Africa 12 g and in the USA 14g. 12 g is probably the most common mass for 1 standard drink

- Chronic, heavy alcohol use has been associated with adverse cardiac outcomes including ischaemic heart disease (IHD), dilated cardiomyopathy, cardiac dysrhythmias, and haemorrhagic strokes [10]. The detrimental effects of heavy drinking occasions on IHD are consistent with the physiological mechanisms of increased clotting and a reduced threshold for ventricular fibrillation which occur following heavy drinking [9].
- Alcohol has been identified as the cause of 30% to 60% of cases of patients with new-onset atrial fibrillation, with several causal mechanisms being put forward to explain this association, including increased intra-atrial conduction time, impairment of vagal tone, hyperadrenergic activity during drinking and withdrawal, and direct alcohol cardiotoxicity [8]. Studies vary considerably in terms of the amount of alcohol needing to be consumed and the onset of cardiac dysrhythmias, ranging from approximately 2 to 5 drinks per day [9].
- Of all alcohol-attributable deaths in 2004, about 22% come from CVDs, 23% for males and 18% for females. CVDs are estimated to comprise approximately 9% of all alcohol-attributable DALYs lost, 10% for males and 8% for females [5]. These estimates do not take into account any beneficial effects of alcohol on CVDs. However, it has been estimated that the detrimental effects of alcohol in terms of CVDs outweigh the beneficial effects by a factor of 2.4 (for deaths) and 3.5 (for DALYs), and these benefits typically only occur with low to moderate alcohol consumption (less than 20 g per day) and then only for selected cardiovascular outcomes (e.g. ischaemic heart disease and strokes) [5].

Alcoholic liver disease (ALD)

- Alcohol is associated with various kinds of liver disease, with fatty liver, alcoholic hepatitis and cirrhosis being the most common. The likelihood of developing

ALD is a function of both the duration and the amount of heavy drinking [11].

- For men drinking 30 g of absolute alcohol per day is associated with a RR of 2.8 of dying from liver cirrhosis (7.7 for females). Regarding morbidity, the RRs for males and females for drinking the same amount of alcohol per day were 0.7 and 2.4. For men drinking 54 g of alcohol per day was associated with a relative risk of 2.3 for acquiring liver cirrhosis. For both morbidity and mortality, the RR increases with the volume consumed per day [12].
- Various mechanisms have been put forward for how alcohol is associated with liver disease, such as the view that the breakdown of alcohol in the liver leads to the generation of free radicals and acetaldehyde which individually damage liver cells [13, 14].
- Of all alcohol-attributable deaths in 2004 about 15% come from liver cirrhosis, 15% for males and 17% for females. CVDs are estimated to comprise approximately 10% of all alcohol-attributable DALYs lost, 9% for males and 13% for females. Alcohol appears to have a greater impact on cirrhosis mortality as compared to cirrhosis morbidity due to the fact that heavy drinking has detrimental effects on the immune system [5].

Other disease

For pancreatitis a threshold of about 48 g pure alcohol per day has been found, again with increased volume of alcohol consumed per day being associated with increased risk [15]. With regards to diabetes the situation is more complicated. A recent meta-analysis confirmed that there is a U-shaped relationship between the average amount of alcohol consumed per day and the risk of type 2 diabetes [16]. There appears to be a protective effect of moderate consumption of alcohol, particularly among women. Further research appears to be needed to make stronger claims about the negative effects of higher levels of consumption of alcohol

and the incidence of diabetes and to allow for greater generalisability of the findings to broader populations globally.

What response is required?

- As part of national efforts to address NCDs countries need to give priority to implementing the *Global Strategy to Reduce the Harmful Use of Alcohol* approved by the WHA in Geneva in May 2010 [4]. Particular attention should be given to implementing evidenced-based strategies that have the potential to reduce the occurrence of heavy drinking episodes and the prevalence of alcohol use disorders that impact on NCDs. Such strategies are likely to include regulating the availability, price and marketing of alcohol and improving the capacity of health services to support initiatives to screen for risk and conduct brief interventions for hazardous and harmful drinking at primary health care and other settings [17, 18, 19].
- While there is less evidence to support the efficacy of health education on its own, it nonetheless does seem appropriate that alcohol consumers should be made aware of the risk associated with different levels of drinking and NCDs. Consumers should, for example, be informed that stopping or reducing alcohol consumption will reduce cancer risks, albeit slowly over time [7].
- Countries must be urged to collect better information on levels of alcohol exposure, e.g. recorded adult (15 years+) per capita consumption in litres of pure alcohol and heavy episodic drinking among adults (15+ years) and alcohol-related harm associated with NCDs (e.g. age-standardized death rates for liver cirrhosis per 100,000 population) [20].
- At a global level support should be given to the WHO to enable it to carry out its mandate in terms of the *Global Strategy to Reduce Harmful Use of Alcohol* and allied WHO resolutions, in particular with regard to providing technical assistance to low- and middle-income countries to

develop and implement policies to reduce the burden of alcohol-related problems; seeing that public health interests regarding alcohol issues are taken into account in global trade agreements, the settlement of trade disputes, and decisions by international development agencies; and ensuring that transnational marketing or major international event marketing does not act against national policies with regard to alcohol advertising and promotion. This needs to come in the form of political support for action and concrete resources to enable WHO to carry out its mandate.

- Opposition from vested interest groups such as the alcohol-beverage industry and associated sectors (e.g. the advertising industry) that benefit from the status quo must be anticipated and countered [3, 7]. Addressing the social determinants of NCDs will also require understanding and combating the role of globalisation in promoting such diseases [21].

Conclusion

Addressing NCDs in countries at all levels of development is now seen as important in ensuring the achievement of MDGs [21]. The way forward is to take concerted and inclusive actions to address the common causes of the most prevalent NCDs. Alcohol has now been recognised as one of four major common risk factors for NCDs. GAPA urges that this reality be factored into documents being prepared for the UN high-level meeting in September 2011.

Not only must the causal association between alcohol use and NCDs be acknowledged, but responses that address the social and environmental drivers of problem drinking must be included in intervention packages that will be highlighted in an Outcomes Statement to be produced at the end of the UN high level meeting. This Statement should be a declaration with clear, binding commitments, measurable

targets and long-term agreements and programmes. It should form a clear programme of action for governments, the UN system, and civil society.

The Global Alcohol Policy Alliance (GAPA) is a developing network of non-governmental organizations and people working in public health agencies that share information on alcohol issues and advocate evidence-based alcohol policies. 12 Caxton Street, London, SW1H 0QS. gapa@ias.org.uk. www.globalgapa.org

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Task Delegation Versus Task Shifting in the Indonesian Health Service



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Prior to 2001, the Indonesian government conducted several programs to enhance the quality of health services at health centers [1]. One of these initiatives was to improve the skill of nurses and midwives in providing health services by using the Clinical Algorithms (CAs). A CA is a step-by-step

problem-solving procedure for clinical services that guides nurses/midwives to arrive at a diagnosis and treatment. The Indonesian government provides CAs because doctors are used in managerial roles at government health centers. As a result nurses and midwives must provide most of the health services. For that reason, the Indonesian Medical Association (IMA) and the Indonesian Nurse Association (INA), in collaboration with the Ministry of Health and Social Welfare and with the support of the World Bank, developed 15 CAs for nurses and midwives to implement in government health centers to improve the quality of services.

After the CAs were developed, the IMA supported the program by issuing a letter of agreement for the nurses and midwives to conduct some restricted medical activities [2]. Through that letter, nurses and midwives had the authority to diagnose and treat patients using the CAs for 15 symptoms of diseases, i.e.: running nose and cough, fever >4 days, fever <5 days, hearing problem, itching of skin, rash on the skin, vagi-

nal discharge, eye redness, diarrhoea, nausea and vomiting, muscle and joint ache, vaginal bleeding, headache, burning during urination, sore throat, epigastric pain, and difficulty in breathing. The IMA letter of agreement meant that certain elements of doctors' authority could be formally delegated to nurses and midwives. Of course, the letter of agreement also had terms and conditions for nurses and midwives to follow when conducting the doctor's job. First, the authority to diagnose and treat using CA guidelines applied only in government health centers during working hours. Second, the tasks delegated were given by the government health center doctor to the government health center nurses and midwives only. Third, the scope of tasks delegated was restricted to CAs with written guidelines. Lastly, the task delegation required nurses and midwives fully record all procedures in patients' medical records.

Task delegation to be Task Shifting

In the beginning, there were no major problems in task delegation or implementing the CA guidelines. For five years, from 2001 until 2005, the program and relationship between doctors and nurses/midwives was



run well. By the end of 2005, however, the situation was out of control. The conditions in the letter of agreement allowing nurses and midwives to conduct these restricted medical activities were not properly met by nurses in one province of Indonesia. At that time, Indonesia had 33 provinces and the doctors in Central Java province, the second largest province in terms of total population, launched a protest to the IMA central executive board. They insisted the IMA Central Executive Board revise the letter of agreement [3].

The main reason for the protest was that the condition of the relationship between doctors and nurses/midwives had become chaotic, especially in Boyolali district, where the Health Authority of Central Java Province established the Village Health Clinic (VHC) [4]. The VHC was basically a community health service effort with the nurses/midwives serving independently as health service officers. It was very different from the spirit of the letter of agreement that allowed the nurses/midwives to conduct diagnoses and treatment in government health centers only. The conflict occurred between general practitioners and nurses/midwives in Boyolali when nurses/midwives campaigned to the community that they could conduct the doctor's job because they were trained as well as a doctor using CA guidelines, which were recognized by IMA. Nurses/midwives also felt secure doing the doctor's job since the VHC was a formal institution licensed by the Central Java Health Office. Task delegation evolved to task shifting at that time.

Cancelled Task Shifting

As a result, the Boyolali District IMA Branch office asked the IMA Central Executive Board to take immediate action [5]. Since data showed that the total number of doctors in Central Java was relatively high in proportion to the population, and transportation was generally available if there was a need to find a doctor in another vil-

lage, the need for task delegation in Central Java seemed less imperative. Fortunately, previous to that situation occurring in October 2004, the Indonesian Parliament and Government had enacted the Medical Practice Law (Law No. 29/2004) [6] which states, in articles 73 & 77, that any person who intentionally assumes the identity of a registered doctor, or provides the impression to the public that he or she is a registered doctor, shall be punished with imprisonment of 5 (five) years or a fine of not more Rp 150.000.000. With this law in place, the Indonesian Medical Association finally cancelled the letter of agreement.

After the IMA cancelled the letter of agreement, there was a need to find a way to meet health services needs when there were no doctors in a particular area. Therefore, the Indonesian Medical Association sent recommendation letter on task delegation in 2008 [7]. In this letter, the IMA recommended that doctors delegate medical authority to nurses/midwives in remote areas with the following terms and conditions: the delegation mechanism includes accountability measures; the criteria of service is very clear; the time frame is restricted; only selected doctors in the area can delegate authority to nurses/midwives; medical authority to be delegated is clear; there is a limited list of drugs that can be dispensed by nurses/midwives; and nurses/midwives can perform these tasks in government health facilities only [8].

The main difference between the prior letter of agreement and the new letter of recommendation is in the scope of collaboration. In the letter of agreement, the Ministry of Health collaborated with the IMA Central Executive Board directly. The terms and conditions of collaboration were very general and it was difficult to control their implementation. In the letter of recommendation, the IMA Central Executive Board did not collaborate directly with the Ministry of Health but instead gave full authority to IMA Branch offices at district levels

to decide on collaboration with the district health office. The collaboration really depends on how severe the shortage of doctors in that area is and requires that doctors in that district accept the concept of delegating their medical authority. The IMA Central Executive Board was involved minimally only in determining the guidelines.

Lessons Learned

The World Medical Association describes "Task Shifting" as a situation where a task normally performed by a physician is transferred to a health professional with a different or lower level of education and training, or to a person specifically trained to perform a limited task only, without having a formal health education (World Medical Association) [9]. Within the World Health Organization (WHO), task shifting is a term that involves the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health [10].

Regardless of the differences between the WMA and WHO definition, the fact is that the Indonesian Medical Association formerly supported shifting some physicians' tasks to nurses and midwives, as communicated through the letter of agreement. But, given the deteriorated professional relationship among physicians and nurses/midwives, and the IMA's assessment that the implementation of task shifting could be dangerous for patients, the Indonesian Medical Association cancelled the letter of agreement.

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History of Georgia, Georgian Medicine and Medea



Otar Toidze



Nino Chikhladze



Gia Lobzhanidze



Zaza Khachiperadze

Georgia

Georgia is situated in the South Caucasus, on the southern foothills of the Greater Caucasus mountain range. There is a short border with Turkey to the south-west and a western coastline on the Black Sea. The northern border with the Russian Federation follows the axis of the Greater Caucasus. To the south lies Armenia and, to the south-east, Azerbaijan.

Georgia has a rich history thanks to its strategic location. Ionian Greeks colonized this area in the 6th century BC. At this time the western region of what is now Georgia was known as Kolkhida and the eastern region as Iberia. In the 4th century BC Georgia was

united into a single kingdom, with Mtskheta as its capital.

Christianity was introduced in the 4th century AD. The Persian and Byzantine empires dominated the area until the Arab conquest in the 7th century. The region then came under control of the Seljuk Turks in the 11th century before their foray into Anatolia. A period of unification and independence in the 12th century, under King David IV, was swept aside by the Turco-Mongol invasion in the 13th century. Between the return of Timur's army to central Asia and the 18th century, control of Georgia oscillated between the Persian and Ottoman empires. A short-lived Georgian kingdom was proclaimed in the mid-18th century, followed

soon after by annexation by the Russian Empire. Initially, in 1783, this took the form of control of the kingdom's foreign affairs.

In 1801, with the abdication of the last Georgian king, Georgia was fully incorporated into the Russian Empire. After the Russian Revolution, in 1917, Georgia briefly became an independent republic. This independence was short-lived, lasting only until 1921, when it was incorporated into the Union of Soviet Socialist Republics (USSR), where it remained for the following 70 years.

During the Soviet era, Georgia was a relatively prosperous republic, supplying USSR with produce and services and exerting con-



siderable influence over internal exchange and cultural networks.

The country declared its independence from the USSR in April 1991[1].

Georgian Medicine (Christian period)

Georgian medicine is one of the oldest in the world. Georgian medicine is created on the basis of two great traditions of East and West. There are more than 500 medical manuscripts in Georgian and foreign libraries. In the 1st century Greco-Roman medicine was closely bound to the ancient Pelasgian, pre-Iberian world. The Georgians and the Caucasians were always close to the Hellenic world. It resulted from genetic, anthropological, intellectual and cultural links between them [2].

The level of Georgian medicine is given in the literary monument of the 5th century "Martyrdom of Shushanic", in which the author gives not only the methods of treatment and care of the patient, but also describes the direct and indirect causes of disease. In the work of Sabatsmindeli "Sin-anulisatvis Simdablis" together with many interesting advises, the medical knowledge necessary for monks and nuns is imparted. An emergency situation with sending for a doctor is noted here as well. It denotes that the doctor's profession has existed independently in the 6th century in Georgia. It is natural that the exceptional place of monastery medicine is especially underlined in religious literary sources.

It is evident that monastery medicine is a significant part of the whole medicine. All saints are healers, and there are no exceptions. Petre Iberi, Shushaniki (5th century AD), Thirteen Assyrian Fathers (6th century AD), and Grigol Khandzteli (8th–9th centuries AD) were the famous healers of their times. Ilarion Kartveli must be especially mentioned. He was a worldwide

known doctor treating patients without fee.

The first medical book, "Ustoro Karabardini", which has reached our time, dates back to the 10th century. Last year we celebrated the 1000th anniversary of the book. It was written by a doctor with encyclopedic knowledge, who called himself Kaneli. Many scientific works are devoted to the Georgian golden period (11th–12th centuries AD). These favorable conditions were conducive to the early origin of remarkable Renaissance. Only after a few centuries Western European countries could enter the Renaissance. Medicine in particular achieved a high level of development. This time was an extraordinary period in Georgian history. Georgian medicine is known as Joanne Petrici's and Arsen Ikaltoeli's period. Arsen Ikaltoeli was recognized as the greatest anatomist of this period. He lived and worked in the same sociocultural environment where the genius of Shota Rustaveli flourished. In the 10th–13th centuries many Georgian institutions were created in Georgia and abroad. Building of hospitals was leading among these activities. The ruins of these hospitals are still to be seen in Georgian cloisters in the western and eastern Georgia, southwestern part Tao-Klarjeti and at Georgian cultural centers abroad: Jerusalem, Khalkedon, Petrisioni, Sinai, and the Black Mountains. Some hospitals had rich libraries.

In the 13th century Kojakopoli wrote the medical book "Tsigni Saakimoi", which also corresponds with the "golden period" of Georgian history. The greatest Georgian doctor and philosopher, Zaza Panaskerteli-Tsitsishvili (15th century AD) was the first lay person, holding an especial place in the history of Georgian medicine. His most famous medical work was "Samkurnalo Tsigni (The Book of Treatment)". It became extremely popular in the country.

In the 16th century David Batonishvili (Bagratioti) wrote the medical book "Iad-

gar Daudi". The 17th–18th centuries were significant because of the expansion of European culture and knowledge in Georgian medicine. The king of Georgia, Vakhtang VI (18th century) took some young people to Russia, where they received university medical education. Among them, Ilia Gruzinov (Namchevadze) should be especially mentioned as a talented person, who was sent to Europe, where he became well known in the scientific circles of Germany, France and England. He is considered as a pioneer neurophysiologist. The document of this period of King Erekle II shows that "Ekimbashi" – chief of doctors – trained his pupils for 20–25 years and only after attending his course, had they a right to conduct independent practice and to have their own trainees.

Medea and Medicine

In the 18th century K. J. Sprengel's classic of the history of medicine begins with *Cura Mediana* (Treatment by Medea) and thus recognizes the antiquity of Kolkh-Iberian medicine. There exists a well-founded version linking medicine with the name of the Kolkhetian ruler's daughter – Medea, famed for her knowledge of various remedies. She was preparing remedies in different forms, for respiratory, internal and external usage, etc. There were many kinds of drugs in her arsenal of medicaments: curing different diseases, giving strength, poisoning, unguents, magic, etc.

One of the medical treatment manipulations, among the ones Medea knew, was the treatment of wounds quickly and effectively. The wounded Argonauts, who were fighting against the Kolkhs, were treated by Medea "in a few days with roots and some other herbs" (Diodorus the Sicilian).

Medea also knew the treatments for sterility. The King of Athens – Egeos, who was "ill with sterility," was told by the healer woman: "You do not even know how lucky

you are as you have come up to me, I know the medicine of infertility.”

The Kolkh woman was quite educated in cosmetology, too. She is considered to be the first in creating coloring hair. She knew the secrets of skin caring.

The healing woman during her medical functioning used to make blood transfusion, too. She used lamb as a donor. She cured Jason's uncle in the same way.

Medea was making poison with special processing – boiling, thermal, mechanic, or chemical influence, that means getting the poison by concentrating. The principle on which nowadays medicine exists and develops, is *contraria contrariis curantur*, or the allopathic maxim. The priority falls on this maxim now. This is the direction followed by the world's modern medicine today.

It is worth mentioning that this direction before Medea's epoch was not developed in any other countries' medicine. In the eastern medicine the allopathic maxim is not emphasized as a dominant one. It originates from Greco-Roman medicine. The roots of it are in Mediterranean Pelasgic and Kolkh-Iberian medicine. The evidence to it is Rodoseli's "Argonautica".

Medea is special for her skills to find out curing merits in new plants. And later, she prepares the concentrates for creating drugs – poison. Seems that this is the basis of connection between "Satsamlavi" (poison) and "Tsamali" (drug) in Georgian.

For effective influence of adversity on another adversity medicine needed drugs. As for the medicine, it was prepared by poison's dilution. It became the basis of the allopathic mentality system. The aunts taught Medea the art of poison preparation. But she used this knowledge differently. As she got the active concentrate from plants, she diluted it in the dose, that this substance

was used not as poison but as a drug. She knew the maxim that medicine is poison and poison is medicine. The difference is only in dosage. (Paracelsus.) Medea could determine dosage between *dosis letalis minima* and *dosis therapeutica*.

Medea's skills are revealed in the myth about the Argonauts. Facts say that Jason arrived from Iolcus to Colchis (the old kingdom of Georgia) to claim his inheritance and throne by retrieving the Golden Fleece. In the most complete surviving account, the Argonautica of Apollonius, Medea fell in love with him and promised to help him but only on the condition that if he succeeded, he would take her with him and marry her. Jason agreed. In a familiar mythic motif, Aeëtes promised to give him the fleece but only if he could perform certain tasks. First, Jason had to plough a field with fire-breathing oxen that he had to yoke himself. Medea gave him an unguent with which to anoint himself and his weapons, to protect him from the bulls' fiery breath.



Figure 1. John William Waterhouse's painting "Jason and Medea" (1907)

Source: http://kevinalfredstrom.com/art/v/paintings/Foto+2_+Jason+and+Medea_+1907+2.jpg.html

Figure 2. The statue of Medea in Batumi

Source: http://4.bp.blogspot.com/_h4G8qWVecRo/TFa7jmAh_2I/AAAAAAAAAamg/vhSrs23GXl0/s1600/100_9408.jpg

Then, Jason had to sow the teeth of a dragon in the ploughed field (compare the myth of

Cadmus). The teeth sprouted into an army of warriors. Jason was forewarned by Medea, however, and knew to throw a rock into the crowd. Unable to determine where the rock had come from, the soldiers attacked and defeated each other. Finally, Aeëtes made Jason fight and kill the sleepless dragon that guarded the fleece. Medea put the beast to sleep with her narcotic herbs. Jason then took the fleece and sailed away with Medea, as he had promised [8].

Even nowadays Medea is highly respected in Georgian medicine. Georgian nation built a statue of Medea in Batumi. The monument is a symbol of Georgia's Black Sea coast and is an attribute thereof.

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Palliative Sedation in the Netherlands

The Royal Dutch Medical Association Guideline Tries to Provide Clarity



Eric van Wijlick

Introduction

Palliative care has been the subject of considerable interest in the Netherlands since the late 1990s, partly because the government has actively promoted it. The past few years have witnessed a proliferation of expertise and skill in this area. The Netherlands now occupies the fourth place in the European ranking for palliative care. This ranking indicates the extent to which palliative care has been developed within a country [1].

Palliative sedation has also been discussed at great length in the context of these developments. This debate was triggered by the Public Prosecution Service in 2003. This year marked criminal and disciplinary proceedings against a physician due to the sedation of a terminally ill patient who was at risk of suffocating. Partly as a result of all the publicity that this story attracted, the government highlighted the importance of the drafting of a national guideline for palliative sedation by the profession. The guideline of the Royal Dutch Medical Association (RDMA) for palliative sedation was published in 2005 and reviewed in 2009

[2–4]. Besides defining the professional standard, the guideline has also acquired legal significance. The Public Prosecution Service has stated that it sees no reason to prosecute physicians who keep to the guideline. Any physician who deviates from it, however, must bear in mind that his actions may be the object of a criminal investigation. Research has shown that the practice of palliative sedation has improved and that the RDMA-guideline is being followed [5–8]. This article discusses the key points of the guideline. The guideline has been translated in full and is available on the website of the RDMA [2].

Relationship between palliative care, palliative sedation and patients' rights

Palliative sedation forms part of a palliative care process [9]. The decision-making process regarding whether or not to commence palliative sedation takes place in the Netherlands within the conditions for a palliative care approach, as described by the WHO: *'Palliative care is an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of the early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual'* [10].

The RDMA strongly agrees with this description, as it centres on the needs of the patient and his or her family. This is crucial when caring for the terminally ill. The focus on the patient's needs is also in line with the rights granted to patients in the Netherlands. The Dutch 'Medical Treatment Contracts Act' stipulates that except for in emergency situations, physicians must adequately inform the patient and the patient must then grant consent before the physician can start

the treatment, if possible. The starting point for every treatment is therefore informed consent. The consequence of this is that the patient may refuse the treatment, and the physician must respect this decision. Aside from this, however, the RDMA considers it important for the physician and patient to talk to one another in clear terms and in a timely manner about feasible and unfeasible care and treatment options in the last stages of life. Staff should be proactive in ensuring that consent is sought while the patient is still lucid. This means that the possibility should be discussed with the patient, if at all possible, well before the stage when palliative sedation is the only remaining option. The essence of this discussion is the quality of remaining life and the inevitable death of the patient.

What does palliative sedation mean?

The RDMA has defined palliative sedation as:

'The deliberate lowering of a patient's level of consciousness in the last stages of life'.

It is a treatment administered to patients who are dying and experiencing unbearable suffering. The aim of palliative sedation is to alleviate this suffering. Lowering the level of consciousness is a means to that end. Palliative sedation can be administered in different ways: deep or superficial, temporary/intermittent or continuous.

The RDMA considers it crucial that palliative sedation be applied proportionately and adequately, in response to the appropriate medical indications. It is the degree of symptom control rather than the degree to which consciousness must be reduced that determines the dose, combinations, and duration of the medication administered in palliative sedation. Interim evaluations and other decision-making processes must be geared towards adequately alleviating the patient's suffering in order to create a tranquil and tolerable situation.



The word 'deliberate' is included in the definition in order to exclude situations in which the lowering of the patient's level of consciousness is a (possibly unintended) side effect of treatment, for instance the lowering of consciousness as a result of the administration of morphine to relieve pain. Physicians may use or increase the dose of opioids or other forms of medication not usually used primarily as sedatives with the implicit or explicit aim of palliative sedation.

Empirical data

The total number of deaths in the Netherlands in 2005 where the patient underwent deep and continuous sedation prior to death was 8.2% [11]. In the international literature, the reported incidence of palliative sedation of patients receiving clinical care (generally in hospices) ranges from 15% to 52%. The commonest indications for palliative sedation are delirium or agitation in the terminal phase (57%), followed by dyspnoea (23%), pain (17%) and vomiting (4%) [12–18].

Continuous, deep sedation until death is practised most often by medical specialists (45%), followed by general practitioners (34%) and nursing home physicians (19%). Of the cases in which continuous, deep sedation was administered until the time of death in the Netherlands, 47% involved patients with cancer, 17% patients with cardiovascular disorders, 6% pulmonary diseases, 4% diseases of the nervous system and 26% 'other' disorders. In about three-quarters of all cases, the patients were aged 65 years or over. The most common symptoms in 2005 in the last 24 hours preceding death were fatigue (55%), dyspnoea (48%), reduced level of consciousness (47%) and pain (42%).

The vast majority of patients have virtually ceased eating and drinking by the time that deep and continuous sedation needs to be initiated and most of them die within a few days of its initiation [14, 20]. Research shows that 47% of patients put into a state

of continuous, deep sedation die within 24 hours, 47% within one to seven days and 4% within one to two weeks [11, 21].

Indications for palliative sedation

In the Netherlands, indications for palliative sedation are present if the patient is suffering from one or more refractory symptoms. A symptom is, or becomes, 'refractory' if 'none of the conventional modes of treatment is effective or fast-acting enough, and/or if these modes of treatment are accompanied by unacceptable side-effects'.

In practice, determining whether a symptom is refractory sometimes leads to difficulties. It requires knowledge and skill to distinguish symptoms that are difficult to treat from symptoms that are untreatable. The physician will have to decide whether a symptom is treatable or not on the basis of accepted good medical practice, bearing in mind the specific circumstances of a patient in the last stages of life. Since the guideline was introduced, patients are increasingly being involved in the decision-making process and at an earlier stage (from 72% before to 82% after the introduction). Determining whether there are indications for palliative sedation is a medical decision. The decision to administer palliative sedation is not based on a specific moment in time, but is a possible outcome within the context of a palliative care plan. Patient and physician (often a member of a multidisciplinary treatment team) have together arrived at a point where they find themselves, through a complex of problems, with their backs to the wall. The feelings of the patient are extremely important, especially as regards the discomfort and other side-effects of any possible mode of treatment. The decision-making is also influenced by factors such as the views of the patient and the physician concerning a 'good death', the quantity and severity of symptoms, the impact of the somatic complaints on feelings such as fear, the fear of death and

the actual process of dying, powerlessness, uncertainty, grief, anger, sadness, the duration of the illness, the burden on informal carers, and the strength and endurance of the patient and of his informal carers. Physical exhaustion (intense fatigue) may also play a role at this stage, and may exacerbate suffering. It is one of the factors that help to determine the patient's endurance. This may lead to the conclusion that there is no more scope for deploying any other reasonable interventions aside from palliative sedation. The decision to apply palliative sedation is made within the context of palliative care, which characteristically relies on a multidisciplinary approach. Nursing staff and other care professionals can provide input for drawing up the indications, and the RDMA advises physicians to consult the appropriate expert in good time if he or she is in any doubt as to whether medical indications are present. In the Netherlands, every physician can enlist the assistance of a regional palliative care consultation team.

The relationship between palliative sedation and action intended to terminate life

Within the context of palliative sedation, the RDMA distinguishes between the following two situations:

- continuous sedation until the time of death;
- temporary or intermittent sedation.

We take the view that on the one hand, these are situations that must both be viewed against the wider background and the process of palliative care, but that on the other hand also differ from one another, for instance as regards the substance and wording of the preconditions for good medical practice. The discussions that have taken place over the past few years have focused on continuous, deep sedation until the time of death. This form of palliative sedation, which is sometimes also known as terminal sedation, and its relationship to action in-

tended to terminate life has led to medical-ethical, legal, social and political debate.

Palliative sedation is a normal medical procedure. The aim of palliative sedation, including continuous sedation until the time of death, is not to shorten or prolong life, but to alleviate suffering. When applied proportionately and adequately, palliative sedation does not hasten death [22–29]. The patient dies as a consequence of the underlying disease and not as a result of palliative sedation. Palliative sedation is a way of stopping the patient from consciously experiencing symptoms and thereby preventing unbearable suffering prior to death. Based on the view that the patient's remaining quality of life and death must be the key focus, the RDMA considers it essential for the physician and patient to talk to one another in clear terms and in a timely manner about feasible and unfeasible palliative care options, including palliative sedation. The guideline therefore places a strong focus on the decision-making process and dealing with the patient's family.

Intermittent palliative sedation can be initiated in consultation with the patient to restore tranquillity and then allow the patient to return to consciousness, but in some situations also provides the opportunity to establish whether a symptom is permanently refractory. This gives the physician the chance to assess the situation with the patient and his or her family and if necessary to modify the management of the case. Another option is continuous sedation. In this situation the RDMA considers that besides the presence of one or more refractory symptoms, a second precondition is the expectation that death will ensue within one to two weeks. The RDMA feels that there should be no artificial administration of fluids and food in the case of continuous sedation. The artificial administration of fluids and food is viewed as medical treatment in the Netherlands. When a patient is in the last stages of life and a palliative care approach has been adopted, the artificial administration of fluids and food must be regarded as medically futile. There

are indications that artificially administering fluids and food to a patient who is dying prolongs life and exacerbates suffering (oedema, ascites, bronchial secretions etc.). In practice, however, most patients are no longer willing or able to take any fluids, because they are dying. Patients are frequently cachectic, tired and debilitated. Of all patients who are continuously sedated prior to death 47% die within 24 hours, 47% within one to seven days and 4% within two weeks. In 2% of patients, it proved necessary to administer continuous sedation for over two weeks [11, 21].

Palliative sedation differs from euthanasia in that its aim is not to shorten life. In this case too, the patient's needs and wishes are paramount. Palliative sedation is the first choice for patients who no longer want to experience unbearable suffering, but who also do not want to end their lives. If the patient does not want to live any longer as a result of his or her unbearable suffering, euthanasia is an option in the Netherlands. Euthanasia is not regarded as a normal medical procedure and is not accepted good medical practice. Euthanasia is subject to statutory requirements. The patient does not have a right to euthanasia and the physician is not under any circumstances obliged to comply with the patient's request. Timely and clear communication about feasible and unfeasible options is of course essential.

Morphine and Midazolam

In situations where continuous, deep sedation until the time of death is being considered, morphine is often already being given to treat pain or dyspnoea. In these circumstances, it may seem attractive to increase the dose of morphine substantially in the hope of expediting loss of consciousness and death. Research into medical decisions relating to the end of life has shown that 19% of specialists, 13% of general practitioners and 10% of nursing home physicians use morphine for this purpose [11]. Closer consideration reveals that its use in this way

often has two different aims: first, to render the patient unconscious and second, to hasten death. For neither of these aims, however, is morphine the drug of choice. Excessively high doses of morphine frequently produce drowsiness, but not always loss of consciousness. Therapeutic doses of opioids (that is, doses tailored to the degree of pain or dyspnoea) are not at all likely to shorten life, even if they are high. Moreover, morphine has major side-effects. For instance, it can increase delirium or induce myoclonus. The RDMA regards the use of morphine for these purposes as bad practice. Morphine should only be given or continued (alongside sedatives) to relieve pain and/or dyspnoea. The dose should be calculated to relieve the actual or assumed extent of the pain and/or dyspnoea. If it is necessary to intentionally lower the patient's level of consciousness in the last stages of life with the aim of alleviating suffering, the RDMA-guideline specifies Midazolam as the drug of choice.

Record-keeping and evaluation

Accurate record-keeping plays a very important role in helping to ensure the quality and continuity of care. Palliative care and sedation characteristically rely on a multidisciplinary approach. This means that all relevant information about the patient and his or her situation must be recorded in his or her file. First and foremost, the file should contain the reasons why it was decided to administer palliative sedation and how sedation was administered. The problems and symptoms that prompted the decision to administer continuous sedation should serve as the basis for evaluation. The physician against whom criminal and disciplinary proceedings were brought in 2003 had failed to adequately update the patient's file. The physician was therefore unable to demonstrate the patient's symptoms, the aim of the treatment, which drugs were used and at what doses. The physician was eventually acquitted. However, the disciplinary court found the physician guilty of failing to keep proper records.



Conclusion

Practice has improved following the introduction of the RDMA-guideline for palliative sedation and is in line with the basic principles and recommendations in the guideline. The RDMA still considers patient involvement in the decision-making process to be a point that requires attention. The essence of palliative care and therefore also palliative sedation is the quality of remaining life and the inevitable death of the patient. The RDMA-guideline clearly states that palliative sedation does not shorten life and must be clearly distinguished from euthanasia. The physician must include in the file information on the patient's symptoms and complaints, the physician's envisaged treatment objective, whether or not informed consent has been granted, the drugs administered and at what doses. It cannot be said enough that the main priority is the quality and continuity of care during the patient's remaining life and death. There is no room for misunderstandings or misconceptions. The RDMA-guideline provides clear and substantiated criteria that can be applied in practice in the Netherlands.

Summary

- In the last stage of life, palliative sedation consists always of continuous administration of the sedatives. In this stage of life the patient is dying and experiencing unbearable suffering.
- Part of palliative care is that the physician and patient talk to one another in clear terms and in a timely manner about feasible and unfeasible options in the last stage of life. The essence of this discussion is the quality of remaining life and the inevitable death of the patient.
- The decision to apply palliative sedation is made within the context of palliative care, which characteristically relies on a multidisciplinary approach.
- Continuous sedation differs from euthanasia in that its aim is not to shorten life. Palliative sedation is a normal medical procedure, euthanasia is not.

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Opinion of the Belgian Medical Association About the Law Referring to Euthanasia



Roland Lemye

Belgium's current law on euthanasia was passed on May 28th, 2002, shortly after a secular government unseated the prevailing Social-Christian party, which had held power almost continuously since World War II. This law is very permissive since it allows euthanasia in circumstances where the death process has begun, as well as in cases of long-term, often terminal illness.

The circumstances

The law was passed in 2002 following a time when rationing, cost containment and the sustainability of social systems were the issues that largely filled political agendas. The extension of life expectancy and the prohibitive cost of the last six months of life often were arguments of weight in the debate.

The philosophical basis of the law

The Belgian law has been very permissive from the very start and recently there has

been a movement to consider extending the law to include the possibility of euthanasia for children. The current law is, to a large extent, founded on the patient's autonomy. It is the patient who decides to submit to euthanasia as long as the conditions of eligibility are met. A constraining anticipated declaration can be made, or a person of trust can be appointed by patients to represent themselves in the event they become unable to express their will. The practitioner may refuse to perform the euthanasia on the grounds of objection of conscience, but must tell the patient and offer to give way, immediately or when the moment has come, to one of their peers who is likely to comply with the patient's wishes. The decision must not be made by the practitioner, nor may he submit it to a committee of ethics. These possibilities have been discarded by the legislator and it stands in the law.

The autonomy of the patient has naturally been supported by advocating associations like « Mourir dans la Dignité » (To Die in Dignity) but often leaves the practitioner perplexed. It can be confusing for practitioners to witness more and more deaths by suicide and even more suicide attempts while trying to bring back to life and restore a joy of living to some patients while euthanizing others. What should be done in the numerous cases of depression in those suffering from incurable diseases?

The situation prior to the law

It cannot be denied that euthanasia was performed in Belgium before the law was passed, although in what numbers it is difficult to assess. Most certainly, it was done in some terminal cases (irreversible coma, unrelieved pain) and maybe also when the

death did not present itself imminently but life had become unbearable (locked-in syndrome). Belgium did experience a famous trial at the end of the 1950's regarding the euthanasia of an infant born without arms or legs, after the intake of Thalidomide by the mother while she was pregnant. The trial ended with acquittals and there were no more trials dealing with euthanasia in Belgium until the subject was debated in the parliament.

Was there a need for a law?

In the past, when charged with the crime of euthanasia or medically assisted suicide, practitioners could raise the argument of a state of necessity, which is the situation in which one has to act in opposition to the law because to obey it would lead to an even greater harm. However, the decision regarding the state of necessity belonged to a judge who would make it according to their own convictions. Therefore, in the past, a physician was quite vulnerable, as the legitimacy of their decisions were subject to the judgement of others. As a result, before the current law was passed, euthanasia was hypothetically legally available to Belgian society under exceptional and justifiable circumstances. However, there was little guarantee that even under these conditions, a practitioner could be found who was willing to risk the legal consequences if a judge were to disagree with the physician's assessment of what constituted an exceptional and justifiable case.

The current situation

The current law sought to make the situation more consistent with the actual situation and, in doing so, it provided a very permissive framework within which euthanasia is permissible because patients with serious incurable diseases are eligible even if they are not threatened by imminent death. The patient is placed at the centre



of the decision by his or her demand, anticipated declaration, or by the demand of the person of trust he or she has previously chosen. In addition, the family practitioner, if he or she accepts a request of euthanasia, must have the eligibility of the patient checked by a second physician and follow an administrative procedure that becomes central to the process. If the procedure is respected, the practitioner must not be sued. Now the responsibility of the judge is to ensure that the procedural guidelines of the law are followed instead of to judge the legality of the performing practitioner's intent.

The current position of the medical profession

At the time the current law was passed, there was not a strong call from the medical profession demanding a law to legalize euthanasia. Our association was in opposition to any such legal initiative. In the field, however, opinions were much more divided and varied. Flemish doctors, probably influenced by the example of the Netherlands, were more in favour of it than the French-speaking physicians who are culturally bound to a more Latin vision of things. Regardless, the law was voted and passed, taking advantage of the eviction of the Catholic parties. The law has now been implemented in Belgium for almost ten years and, as of yet, there is no evidence of the slippery slope of broadening eligibility that the Netherlands has experienced. On the contrary, an important opposition has been noted in the French-speaking part of the country, although the Dutch-speaking part of the country has remained stable in its support of the law. Despite the law's history of non-revision, there is no guarantee that changes to the law will not be called for in the future. Furthermore, the complexity of the administrative procedure and the uncertainty of the response to declarations of legal euthanasia suggest that, even under the law, not all cases of

euthanasia are declared. The question is almost no longer mentioned in administrative boards since it is well known that opinions are even more divided since the publication of the law. Our association has, however, refused to meet the request of some practitioners who, supported by mutual insurance companies and social security, have proposed to create a fee for this medical act.

Remaining questions

1. Is life the absolute value which physicians have to protect at any cost?
2. If there exists a hierarchy according to which life has to be sacrificed for more important values (sacrifice, suffering, ...), who is able to judge? A physician has his or her own hierarchy of values. His or her judgement may be altered by his own suffering or emotions. Society's opinion is most certainly the one that has to be disregarded in the individual decision because it is the most motivated by money savings. But is the patient really able to judge? Does the anticipated decision really allow people to predict how they will feel when faced with death? Couldn't it be said that people at the end of their life are too vulnerable and likely to be swayed by the pressure of their entourage and society to be able to refuse such a decision? Who can advocate for them better than their family practitioner in such a situation? Suicide and suicide attempts are such frequent events in our society that it is difficult for physicians who witness these situations to leave the decision to die or not solely with the afflicted patient, even if the decision for suicide seems to be based on good reasons.
3. To put an end to a patient's suffering when he or she is agonizing or has reached a stage of unconsciousness without any hope of recovering is one thing, but to put an end to the life of an incurable patient who is not at a terminal

stage is something different. If that last statement is admitted, where is the border?

4. On the other hand, did not the physicians themselves induce a distorted image with therapeutic harassment, not always misplaced. Here too, where is the line drawn?
5. Is the family in a better position to decide? The family may have interests which could sway their decision. Even if there was no ulterior motive to decide for euthanasia, is it right that the family bears the burden of such a decision?
6. Some say that the family practitioner could do that last duty to the patient, but is it really his or her role?

Conclusion

Civil society is evolving. The rights of the individual are growing while, at the same time, a will for transparency threads on everyone's private life. The countries that have legislated to allow euthanasia or medically assisted suicide have also, simultaneously, legislated to define patient care to which all patients are entitled. By doing so, they also define the patient care to which they are not entitled. According to the principle of equity, what is not affordable for everybody should not be affordable for anybody. Is it possible to infer from all this that the concepts of rationing, sustainability of patient care, equity and euthanasia are bound together, whether the physicians accept it or not? Whatever may happen in society, physicians always have to stand on the side of their patients.

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Report from Infectious Diseases Conference, Malta 2010



Gordon Caruana-Dingli

The Challenge of Infectious Diseases: A Historical Perspective /lead of the section Prof. Charles Savona Ventura/

It was made clear from the beginning of this conference that infectious diseases are still very much at the top of most of the world's agenda. Malta's strategic importance due to its geographical position in the centre of the Mediterranean has attracted a string of powers over the centuries, and with them, infectious diseases.

In the Medieval ages it was well understood that the spread of disease resulted from a "corruption of the atmosphere" or, as it was known at the time, a "Miasma". By the time the Knights of the Order of St John presided over the archipelago, quarantine was strictly enforced. Punishments were harsh if regulations were infringed but Malta had been stung by repeated outbreaks of the Bubonic Plague and every effort was made to stem the deaths.

Bishop Island (now Manoel Island) was the site for the temporary accommodation



Stephen Micallef-Eynaud

of sailors entering Malta's harbours during the British Period. John Howard described the fumigation process, or "perfuming", that took place there. The worst plague to ever hit the island occurred in 1675, claiming the lives of 20% of the population. Gozo, however, was spared. It was not until 1894 that the causative bacterium was identified and the last outbreak of plague took place during the Second World War, the Government setting a price on rats' heads.

Hepatitis C: Current Standards of Care /lead of the section Dr. James Pocock/

The 6 genotypes of the Hepatitis C virus were identified and described, as was the screening process for their respectable antibodies. Hepatitis C is a chronic disease that leads to cirrhosis and liver failure in 30% of patients, with the attendant risk of Hepatocellular Carcinoma.

The virus may be transmitted through the bloodstream, through contact of mucous membranes, or vertically during childbirth. 72% of cases in Malta are drug addicts.

Drugs include PEGylated Interferon and Ribavirin. There are numerous adverse affects of PEGylated Interferon, including an Influenza-like syndrome, bone-marrow suppression and autoimmune diseases. Ribavirin also has serious side effects, namely teratogenicity and a tendency to induce haemolysis. Contraindications for the use of these drugs include co-morbidities, pregnancy and decompensated liver failure.

The Markov Model, constructed from cohort studies, predicts the course of Hepatitis C in different patients, the possible outcomes being a breakthrough, relapse or a sustained virological response. The importance of achieving an early virological response (EVR) is recognized. The aim is for a 50% reduction in vRNA by the 12th week of treatment. Genotypes 2 and 3 are classified as dose-independent patients whilst genotypes 1 and 4 are dose-dependent patients. A single letter genetic variation of the IL 28B Gene on chromosome 19, coding for interferon λ 3, seems to be responsible for the genotypic variation. Studies have shown that prolonged treatment for 24 weeks are beneficial for genotypes 2 and 3.

Treatment should be terminated after 72 weeks for patients who fail to respond. Protease inhibitors are used after trying a PEGylated interferon and Ribavirin combination. There is also an ethnic variation in the degree of response to treatment, with Asians reacting well but Africans poorly.

Challenges in Prosthetic Joint Infections /lead of the section Dr. Charles Mallia-Azzopardi/

The main sites vulnerable to developing prosthetic joint infections were outlined, with special emphasis on the hip and the knee, as well as revision arthroplasties. Advanced age, obesity and diabetes were mentioned as predisposing factors and Coagulase-negative Staphylococci were identified as the most important causative pathogens.

Prosthetic joint infections may be classified according to their time of onset into early, middle and late. The former occur within 3 months of the operation and are generally caused by more virulent organisms. They are characterized by an inflammatory response around the suture line. The latter may arise 2 years after the operation, are generally caused by less virulent organisms and are often the result of haematogenous spread from a urinary tract infection, pulmonary infection or any other primary locus.

The “Arthroplasty Effect” was described. Macrophages are known to take up debris from the prosthesis. An increase in osteoclast activity then follows, possibly due to inflammatory mediators. Bone resorption ultimately leads to mechanical dysfunction. A key element in the pathogenesis is the development of a biofilm. This impregnable surface offers protection to the microbes beneath, where they exist in a highly organized community and exhibit quorum signaling and the development of complex water channels.

Correct diagnosis involves the measurement of inflammatory markers: CRP and ESR. A high white blood cell count and procalcitonin level are less sensitive tests. There are various means of imaging the joint. X-rays often prove to lack sensitivity. MRI and CT scanning are of limited use. Nuclear imaging is not ideal. Sinugrams may be more helpful in visualizing the site of infection. Microbiological culture and sensitivity testing requires organisms to be retrieved from the peri-prosthetic area and not the sinus, where the flora will correlate poorly with that found at the surgical site.

The joint is removed and placed in a vortex container. This removes the biofilm and allows proper investigation of the joint, including careful sampling and debridement of necrotic tissue. The patient receives long term antibiotic therapy before undergoing a joint replacement. An antibiotic-impregnated cement is used for this procedure.

Infections in an Intensive Care Unit /lead of the section Dr. Sundaram Arulraj/

Ventilator-associated pneumonias (VAPs), catheter-associated urinary tract infection (CAUTIs), and catheter-related bloodstream infection (CRBSIs) are just a handful of the enormous list of infectious diseases encountered in an ICU environment, where pathogens may invade the patient “from the floor to the roof”.

Several factors contribute to the high incidence of these infections in the ICU and the associated poor patient outcomes. Compared to patients in the general hospital population, patients in ICUs have more chronic comorbid illnesses and more severe acute physiologic derangements. The use of certain drugs, such as sedatives and muscle relaxants also predisposes to infection.

The high frequency of indwelling catheters among ICU patients provide a portal of entry of organisms into the bloodstream. The use and maintenance of these catheters necessitate frequent contact with health care workers, which predispose patients to colonization and infection with nosocomial pathogens.

Multidrug-resistant pathogens such as methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE) are being isolated with increasing frequency in ICUs. Infections caused by these resistant pathogens are difficult to treat effectively.

mHealth /lead of the section Dr. Michael Chamberlain/

mHealth is the practice of medical and public health, supported by mobile devices.

Whilst it certainly has a role for industrialized nations, the field has emerged in recent years as a major application for developing countries, stemming from the rapid rise of mobile phone penetration in low-income

nations. mHealth is a useful means of providing greater access to larger segments of a population in developing countries, as well as improving the capacity of health systems in such countries to provide quality health-care.

The motivation behind the development of the mHealth field arises from two factors. The first factor concerns the myriad constraints felt by the healthcare systems of developing nations. These constraints include high population growth, a high burden of disease prevalence, low health care workforce, large numbers of rural inhabitants, and limited financial resources to support healthcare infrastructure and health information systems. The second factor is the recent rapid rise in mobile phone penetration in developing countries to large segments of the healthcare workforce, as well as the population of a country as a whole. With greater access to mobile phones, the potential of lowering information and transaction costs in order to deliver healthcare improves.

The combination of these two factors have motivated much discussion of how greater access to mobile phone technology can be leveraged to mitigate the numerous pressures faced by developing countries' health-care systems.

Trinidad and Tobago /lead of the section Dr. Soloiman Juman/

The talk focused on the main infectious diseases crippling this twin island state.

HIV remains at the forefront of the population's health burdens. The incidence of new cases has remained fairly constant in recent years, with a 3.2% prevalence. Only 6,000 of the 18,000 people infected with HIV are receiving treatment. HIV has received increasing attention over the past five years with the introduction of the National AIDS Coordinating Committee and the Medical Research Foundation in the capital, Port of Spain.



Dengue has spread relentlessly through the Caribbean in the past 2 years. There is some discrepancy in identifying 'true cases'. Tuberculosis, which had been rampant up until the early 1980s, has reared its ugly head again in concordance with the rise in HIV/AIDS and a trend in antibiotic resistance. 5 deaths due to H1N1 infection were also noted in the country.

In 1983 only 60% of children one year of age and younger had been immunized against measles, poliomyelitis, diphtheria, pertussis, and tetanus. The implication of the deficient inoculation programs was evident in the 4.7% of total deaths resulting from infectious and parasitic diseases; this was significantly higher than on other English-speaking Caribbean islands. Today, the pneumococcal polyvalent vaccine is only available privately.

Nigeria /lead of the section Prof. Oluwole Ayoola Atoyebi and Dr. Chris Piwuna/

The immensity of the impact that infectious diseases have had and continue to have on Africa's most populous country, with a population of 151 million, was outlined from the beginning of this talk.

Only 53% of the population have constant access to safe drinking water. "Extreme Poverty" is on the rise throughout the country, and with it infectious diseases. 2.6 million people are living with AIDS. The prevalence of HIV stands at 3.1%. Non communicable diseases are also increasing, particularly among the higher income groups, possibly as a result of poor dietary habits and unhealthy lifestyles. Poverty and illiteracy are becoming more widespread and urban slums are growing. Venereal diseases are rife throughout much of the country and "Religion" was likened to the West's way of polluting the minds of Nigeria's people.

Malaria has greatly risen in incidence and the parasite is showing resistance. The

economy has been severely affected by this disease. The worst death rates have been in children. Faeco-oral diseases are also on the rise and the recent cholera epidemics have been grave.

Measles continues to affect many children each year. Other diseases widespread in Nigeria are: Leprosy, Meningococcal Meningitis, Tuberculosis, Poliomyelitis and Neonatal Tetanus.

Malaysia /lead of the section Dr. Ara Nachiappan Arumugam and Dr. Kuljit Singh/

The country lies just north of the equator and supports a rich tropical environment. The jungles and swamps that characterize much of Malaysia provide a perfect habitat for mosquitoes, as was noted by Sir Frank Swettenham, the viceroy of British Malaya during the colonial period. Still a large percentage of the population are farmers and fishermen. Sustainable logging accounts for a significant portion of the country's economy.

There is a long list of notifiable diseases in Malaysia. Dengue has become very common in recent years. It occurs in cities as well as rural areas. Plans to release a genetically modified mosquito to wipe out the natural vector for the disease have had sceptical responses. Surveillance maps allow 'hot spots' for infection to be identified. Tuberculosis, food poisoning and Chikungunya are also high on the list. There have been sporadic cases of Avian Influenza, H1N1 and SARS. 3 million foreign workers and 1 million illegal workers provide a continual source for the re-emergence of infectious diseases.

Influenza /lead of the section Dr. Tanya Melillo/

Influenza, commonly referred to as the flu, was defined as an infectious disease caused by RNA viruses of the family Orthomyxoviridae, that affects birds and mammals. The most common symptoms of the disease

were identified: chills, fever, sore throat, muscle pains, severe headache, coughing, weakness/fatigue and general discomfort are all characteristic.

Vaccinations against influenza are usually given to people in developed countries and to farmed poultry. The most common human vaccine is the trivalent influenza vaccine (TIV) that contains purified and inactivated material from three viral strains. Typically, this vaccine includes material from two influenza A virus subtypes and one influenza B virus strain. The TIV carries no risk of transmitting the disease, and it has very low reactivity. A vaccine formulated for one year may be ineffective in the following year, since the influenza virus evolves rapidly, and new strains quickly replace the older ones. Antiviral drugs can be used to treat influenza, with neuraminidase inhibitors being particularly effective.

Influenza is much more severe and lasts longer than the common cold. Most people will recover completely in about one to two weeks, but others will develop life-threatening complications (such as pneumonia). Influenza, thus, can be deadly, especially for the weak, young and old, or chronically ill. Those who are immunosuppressed, such as people with advanced HIV infection or transplant patients, suffer from particularly severe disease. Other high-risk groups include pregnant women and young children.

The flu can worsen chronic health problems. People with emphysema, chronic bronchitis or asthma may experience shortness of breath while they have the flu, and influenza may cause worsening of coronary heart disease or congestive heart failure. Smoking is another risk factor associated with more serious disease and increased mortality from influenza.

Reference was made to the various strains of influenza viruses: the present H1N1 pandemic, Avian H5N1, H9N2 (China 1999) and H7N3 (Holland).



It was appreciated that the threat of H1N1 is still with us. The virus acquired its pandemic properties in Mexico. It is known to be more prevalent and serious amongst young and pregnant females. Because the mean age of death is just 34.7 years, the number of years of life lost is high. It is understood that those who have a D222G gene mutation are the worst affected.

**Uganda /lead of the section
Dr. Margaret Mungherera
and Dr. Jenifer Kavuma/**

This equatorial country has a growing population of 31 million, 35% of whom are severely impoverished. Infant mortality stands at 76 per 1,000. At the forefront of Uganda's healthcare woes are a massive 'brain drain' problem and a mushrooming of alternative medicine.

There is a National Health Policy which aims to provide primary healthcare delivery and financing. The majority of the outpatient workload is composed of infectious diseases. Malaria accounts for 40%, Respiratory infections – 25% and HIV/AIDS – 6.2%. Tuberculosis has re-emerged as an important and widespread infectious affliction.

Key programs for infectious diseases include Malaria Control, to stem the current upsurge in Malaria, AIDS Control, Clinical Intervention, Tuberculosis and Leprosy Control, Nutrition and Health Promotion. The 6 traditional vaccines are offered as well as the Hepatitis B and Haemophilus Influenzae vaccines.

70% of ill-health amongst children is related to malnutrition. Breast feeding is being promoted. Radio and television are utilized for health promotion and there is an ongoing handwashing and soap campaign. The challenges are varied and are financial, cultural, political and infrastructural in nature. Hospice Africa and a Palliative Care University course have been highly successful in Uganda.

**Novel Antibiotics /lead of the section
Dr. Paul Caruana/**

We are living in an era where infectious diseases that were once notorious killers of the past are staging a collective comeback in the form of antibiotic-resistant strains of bacteria. Bacteria obtain resistance genes from various sources. When it comes to naturally-derived bactericidal agents, pools of resistance genes exist in the wild, in plasmids, transposons and other vectors. Synthetic antibiotics on the other hand demand mutations of the bacterial genome in order to afford resistance.

Mention was made of the emergence of highly resistant "Superbugs" such as MRSA, VISA and VRSA, and that bacteria outnumber human cells by ten to one. It was outlined from the start that the manufacture of new antibiotics is not cost effective.

Daptomycin is used as a last line for resistant Gram positive agents. It is extremely toxic and was sold off by the original manufacturer to a pharmaceutical company. There is a small market for its use; hence its manufacture may not be worth the price. It is used to treat VISA and VRSA, for soft tissue staphylococcal infections and bacteraemia and right sided endocarditis.

Linezolid, which can only be given via the intravenous route, is associated with thrombocytopenia and optic neuritis and must not be continued for over 28 days. Quinupristin and Dalfopristin are used to treat staphylococci and streptococci. Lipoglycopeptides such as Televancin and Dalbavancin are still in the third phase of clinical trials and have not yet been FDA approved.

Gram negative bacteria are equipped with a semi-permeable membrane that drugs must pass through to affect the bacterium, hence the potential for resistance is much greater. Strains of Pseudomonas and Acinetobacter have shown extreme multi-drug resistance. Carbapenemase-

producing E.coli and Klebsiella have also been recorded. Resistance genes are easily transmitted via plasmids. Tigecycline, a derivative of Minocycline, is used to treat soft tissue infections.

More futuristic antibiotics include NXL 104 and antibacterial polypeptides and polymyxins derived from anywhere between frog's skins all the way to insect secretions.

It was pointed out that the situation in veterinary practice is just as bad, if not worse, and that species leakage of antibiotic resistance is an extremely important factor to consider.

**Ghana /lead of the section
Dr. Kwabena Opuku Adusei and
Dr. Rita Larsen-Reindorf/**

'Roll Back Malaria' is a recent incentive in Ghana to combat the upsurge of malaria that has spread relentlessly throughout the country in recent years. The severest outcomes have been in children under 5 years old and in pregnant women. Breeding grounds of the Anopheles gambiae mosquito are targeted by indoor residual spraying with insecticides. However, poor record keeping and the poor quality of drugs used to treat the condition have limited the effectiveness of this campaign.

The 'Hang Up Campaign' has been initiated to increase public awareness of the benefits of mosquito nets in the prevention of malaria.

There is a 2.9% prevalence of malaria in Ghana, with more people in the south of the country being infected. Numbers are rising. The Ghana AIDS Community strives to establish good education, management and control of the disease and those affected by it. Anti-Retroviral Treatment services (ART) are heavily subsidized and are free. They include CD4 counts. There are plans to set up HAART centres within the country. Challenges to adequate healthcare in the community are plentiful and diverse,

including social stigma and beliefs, funding and popular culture.

Bangladesh /lead of the section

Prof. Sharfuddin Ahmed/

The country is home to 162 million, the 8th most populous country in the world, and is the 6th worst Tuberculosis-affected country, along with Cambodia, Ethiopia, Afghanistan and India. Other infectious diseases that continue to plague the country are Malaria, Kala-Azar, Leptospirosis, Infectious Diarrhoea, Dengue, Nipah Virus and HIV.

Health and education levels remain relatively low, although they have improved recently as poverty levels have decreased. Most Bangladeshis continue to live on subsistence farming in rural villages. Health problems abound, springing from poor water quality and prevalence of infectious diseases. The water crisis is acute, with widespread bacterial contamination of surface water and arsenic contamination of groundwater. There are high risk endemic districts for malaria. The incidence of Hepatitis A is currently 2–7%, that of Hepatitis B is 2–4% and that of Hepatitis C is 1–3%. Because 90% of the population are Muslim and are generally sexually disciplined, the prevalence of HIV/AIDS is comparatively low (0.1%).

Filariasis is endemic in 23 districts and 20 million are already infected. Diarrhoeal diseases are especially common during the seasonal cyclones which bring bad floods and water pollution. There have been both dengue and anthrax epidemics. H1N1 and H5N1 have also left their mark on the country

Cyprus /lead of the section/lead of the section

Dr. Andreas Demetirou/

In stark contrast to the developing nations, Cyprus has a very low incidence of infectious diseases. 40% of annual deaths are due to cardiovascular morbidity, 20% due to neoplasia and 10% due to diabetes.

However, the country has seen large influxes of foreigners and tuberculosis is on the rise.

There have been only 3 reported cases of MDR resistant tubercle bacilli in 10 years.

Tuberculosis patients are isolated for 3 weeks in a special residence in the mountains until they are sputum culture negative. The question was raised as to whether or not this violated human rights.

Severe Sepsis /lead of the section

Dr. Tonio Piscopo/

Worldwide, 18 million people die from sepsis every year. It carries a 25–30% mortality rate. Sepsis cases are set to grow at a rate of 1.5% per annum. Sepsis was defined as a systemic inflammatory response syndrome (SIRS) resulting from infection. Infection, in turn, was defined as an invasion by microorganisms causing inflammation.

The signs of sepsis were discussed. A temperature above 38°C, a heart rate above 90 beats/minute, a respiratory rate above 20 breaths/minute and a white cell count above 12,000/mm³ are all helpful diagnostically. The pathological mechanism underlying sepsis was discussed, with reference to the bacterial lipopolysaccharides that trigger the immune response. The role of Activated Protein C in counteracting the pro-coagulation pathway and of bradykinin and the cytokines in the production of oedema were also discussed. It was noted that it is the body's reaction to infection, rather than the infection itself which produces most of the widespread damage. The organisms become 'bystanders'.

Outcomes of sepsis include confusion, change in personality, tachypnoea, jaundice and hepatic necrosis, fever, disseminated intravascular coagulation and renal failure, amongst others. The role of antibiotics in lowering the infectious load, the toxic burden and the inflammatory response was discussed. The causes for delays in the management of sepsis include logistical delays, failure to give clear instructions and a failure to reach a correct diagnosis.

Highly Infectious Diseases /lead of the section

Dr. Barbara Bannister/

The regional importance of infectious diseases throughout much of the Commonwealth was stressed. Severe disease is gaining ground in new threats such as bioterrorism. All cause death by initiating a sepsis syndrome.

Viral infections were discussed. The death and malfunction of immune N-K phagocytic cells through interferon damage induced by viruses was described. It was stated that these infections are largely zoonotic. The Haemorrhagic fevers, including yellow fever, hendra, dengue, Rift Valley virus and tularaemia were mentioned.

Crimean–Congo hemorrhagic fever (CCHF) is a widespread tick-borne viral disease, a zoonosis of domestic animals and wild animals, that may affect humans. The pathogenic virus, especially common in East and West Africa, is a member of the *Bunyaviridae* family of RNA viruses. Clinical disease is rare in infected mammals, but commonly severe in infected humans, with a 30% mortality rate. Outbreaks of illness are usually attributable to handling infected animals or people.

Sporadic infection of people is usually caused by *Hyalomma* tick bite. Clusters of illness typically appear after people treat, butcher or eat infected livestock, particularly ruminants and ostriches. Outbreaks have occurred in clinical facilities where health workers have been exposed to infected blood and fomites.

The causative organism is found in Asia, Eastern Europe, the Middle East, a belt across central Africa and South Africa and Madagascar. The main environmental reservoir for the virus is small mammals (particularly European hare, Middle-African hedgehogs and multimammate rats). Ticks carry the virus to domestic animal stock. Sheep, goats and cattle develop high titers of virus in blood, but tend not to fall ill.

Birds are generally resistant with the exception of ostriches.

Typically, after a 1–3 day incubation period following a tick bite (5–6 days after exposure to infected blood or tissues), flu-like symptoms appear, which may resolve after one week. In up to 75% of cases, however, signs of hemorrhage appear within 3–5 days of the onset of illness in case of bad containment of the first symptoms: first mood instability, agitation, mental confusion and throat petechiae, then soon nosebleeds, bloody urine and vomiting, and black stools. The liver becomes swollen and painful. Disseminated intravascular coagulation may occur as well as acute kidney failure and shock, and sometimes acute respiratory distress syndrome.

Patients usually begin to recover after 9–10 days from symptom onset, but 30% die in the second week of illness.

Where mammal and tick infection is common agricultural regulations require deticking farm animals before transportation or delivery for slaughter. Personal tick avoidance measures are recommended, such as use of insect repellents, adequate clothing and body inspection for adherent ticks.

When feverish patients with evidence of bleeding require resuscitation or intensive care, body substance isolation precautions should be taken. The United States armed forces maintain special stocks of ribavirin to protect personnel deployed to Afghanistan and Iraq from CCHF.

Treatment is primarily symptomatic and supportive, as there is no established specific treatment. Ribavirin is effective in vitro and has been used during outbreaks, but there is no trial evidence to support its use.

The Filoviruses were then discussed. *Filoviridae* is the family of viruses that belong to the order *Mononegavirales*. Filoviruses cause viral hemorrhagic fevers, character-

ised by often fatal bleeding and coagulation abnormalities. The name Filovirus is derived from the Latin word *filum*, alluding to the thread-like appearance of virus particles in electron microscope images.[1] Filoviruses are single stranded negative sense RNA viruses that target primates. There are two genera: the Ebola virus and Marburg virus. Mechanisms of transmission were described, with reference to Bundibugyo, a small town in western Uganda where fruit bats serve as the main reservoir for filoviruses and are transmitted via monkey bush meat. The Ebola viruses are spread by rats.

The Viral Haemorrhagic Fevers were then discussed. There is an acute onset of flu-like symptoms with these diseases, characterized by abdominal pain, aches, myalgia and fever. Blood tests reveal a low white cell count and a raised C-Reactive Protein level. There is frank bleeding from the nose and gums. An escalation of AST is coupled with a profound decrease in the platelet count. With a patient presenting with the early features of Crimean Congo Haemorrhagic Fever (petechiae, soft tissue bleeding and bruising, gastrointestinal bleeding and exsanguinating nose bleeds) we must enquire about recent travel to tropical destinations. Antigen testing, such as IgM ELSIA, is insensitive because the patient has a damaged immune system. Vial culture is the gold standard.

Management includes early Ribavirin to raise the platelet count and lower mortality. The bleeding must then be managed. There is no licensed vaccine.

We should educate people living in endemic areas not to squash ticks and instruct them on good food and farm hygiene.

Lassa Fever was next discussed. The virus comes from the *Arenaviridae* family and its reservoir lies in the rat population. Spread is through rat faeces, urine and bites. There is a Lassa Fever belt across West Africa from Guinea to Cameroon, but interestingly not in Ghana.

The presenting features include a non-pitting swelling of the face and neck, as well as haemorrhagic signs. There may be neurological features and full-blown septic shock. The markers of prognosis include a viraemia, and incubation periods, which are very helpful in risk assessment.

Risk factors are important and include: Ticks, handling and butchering animals, traditional funeral ceremonies, needle stick injuries, caring for a sick family member and working around drains (where rats abound).

Chikungunya, first described in Tanzania in 1953, is spread by the Asian Tiger mosquito and has led to epidemics in the tropics, most notably in Mauritius. Climate may have far-reaching implications, with the mosquito being able to spread over winter months.

HIV in Pregnancy /lead of the section Dr. Lisa Micallef Grimaud/

Mother to child transmission of HIV/AIDS is exceptionally prevalent in Sub-Saharan Africa and 40% of all cases occur within the Commonwealth. Maternal factors include the HIV viral load, genital infections with ulcers and intravenous drug abuse. Pregnancy factors include chorioamnionitis, prolonged rupture of membranes, the gestational age at delivery and the mode of delivery.

When HIV is diagnosed during Pregnancy the mother is first assessed and it must be decided whether she needs Anti-Retroviral Therapy for her own health. If so, ART is initiated. If not, ART begins in the second trimester. The PACTG 076 Study showed that Zidovudine prophylaxis decreased vertical transmission by 67.5%.

Anti-Retroviral Therapy in pregnancy decreases the viral load by crossing the placenta and by decreasing secretions. Delivery should be by pre-labour caesarean section at 39 weeks, under intravenous zidovudine cover. In Malta HIV is usually diagnosed during the second and third trimester.



HIV in Children /lead of the section Dr. David Pace/

This is a worldwide problem, with the latest epidemics occurring in Eastern Europe, Central and South-East Asia and Sub-Saharan Africa. Most cases are due to perinatal transmission. Management includes combination ART for the mother, caesarean section, avoidance of breastfeeding and ART prophylaxis in children.

68% of HIV cases in Malta have been in migrants from Sub-Saharan Africa, 18% in Maltese, 9% in Eastern Europeans and 5% in North Africans. The majority of mothers infected with HIV were unsupported. Most fathers accepted testing. The peak witnessed in 2008 corresponded with the peak in illegal immigration of that year. The mode of delivery was found to significantly affect the rates of vertical transmission. Vaginal delivery, Elective Caesarean and Emergency Caesarean section resulted in 10%, 2% and 9% rates of transmission respectively.

Breast milk is known to contain HIV in both cell form and free form. Administering ART to infants will not only be of benefit to their own health but will benefit the general population by rendering them potentially less infective. Challenges faced by clinicians include language barriers, poverty (many are unable to afford the formula milk), improper sterilization of bottles, inappropriate mixing techniques and cultural stigmas.

HIV and Hepatitis – Challenging Interactions /lead of the section Dr. Alistair Miller/

It was stressed that if one blood-borne virus is diagnosed, the patient should be investigated for other blood-borne viruses, with similar routes of transmission.

Models of care include well-equipped genitourinary, hepatology and infectious diseases clinics. Globally, 175 million are infected with HIV, 60 million are infected with Hepatitis C and amongst them, some

10 million are suffering from a co-infection between the two viruses.

Chronic liver disease rates are known to coincide with HIV epidemics and co-infection results in a much higher grade of Hepatitis C viraemia. To add even more insult to injury, Anti-Retroviral Therapy produces various toxic effects on the liver. Some of the drugs used cause hepatic fibrosis and non-cirrhotic portal hypertension. A liver biopsy will establish the degree of fibrosis. The need to initiate immediate Antiretrovirals should be questioned in view of the individual patient.

It was pointed out that in a child the immune system is not yet mature. Infection with Hepatitis B results in high levels of the Hep B virus (the so called 'Immune tolerant' phase). Once the immune system begins to develop resistance against the Hep B virus, inflammatory processes begin to damage the liver, in contrast to Hep C infection where the virus particle itself is responsible for the liver damage, and end stage hepatic failure.

Malaria – Counting it Out /lead of the section Dr. Chantal Galea and Dr. Claudia Fsadni/

Malaria is a mosquito-borne infectious disease of humans caused by eukaryotic protists of the genus *Plasmodium*. It is widespread in tropical and subtropical regions, including much of Sub-Saharan Africa, Asia and the Americas. The disease results from the multiplication of malaria parasites within red blood cells, causing symptoms that typically include fever and headache, in severe cases progressing to coma, and death.

Five species of *Plasmodium* can infect humans: severe disease is largely caused by *Plasmodium falciparum*. Malaria caused by *Plasmodium vivax*, *Plasmodium ovale* and *Plasmodium malariae* is generally a milder disease that is rarely fatal. A fifth species, *Plasmodium knowlesi*, is a zoonosis that

causes malaria in macaques but can also infect humans.

Malaria transmission can be reduced by preventing mosquito bites by distribution of inexpensive mosquito nets and insect repellents, or by mosquito-control measures such as spraying insecticides inside houses and draining standing water where mosquitoes lay their eggs. Although many are under development, the challenge of producing a widely available vaccine that provides a high level of protection for a sustained period is still to be met. Several drugs are also available to prevent malaria in travellers to malaria-endemic countries (prophylaxis).

A variety of antimalarial medications are available. In the last 5 years, treatment of *P. falciparum* infections in endemic countries has been transformed by the use of combinations of drugs containing an artemisinin derivative. Severe malaria is treated with intravenous or intramuscular quinine or, increasingly, the artemisinin derivative artesunate which is superior to quinine in both children and adults. Resistance has developed to several antimalarial drugs, most notably chloroquine.

Each year, there are more than 225 million cases of malaria, killing around 781,000 people each year according to the latest WHO Report. The majority of deaths are of young children in sub-Saharan Africa. Ninety percent of malaria-related deaths occur in sub-Saharan Africa. Malaria is commonly associated with poverty, and can indeed be a cause of poverty and a major hindrance to economic development.

For areas where microscopy is not available, or where laboratory staff are not experienced at malaria diagnosis, there are commercial antigen detection tests that require only a drop of blood. Immunochromatographic tests have been developed, distributed and fieldtested. These tests use finger-stick or venous blood, the completed



test takes a total of 15–20 minutes, and the results are read visually as the presence or absence of colored stripes on the dipstick, so they are suitable for use in the field. The first rapid diagnostic tests were using *P. falciparum* glutamate dehydrogenase as antigen.

Molecular methods are available in some clinical laboratories and rapid real-time assays (for example, QT-NASBA based on the polymerase chain reaction) are being developed with the hope of being able to deploy them in endemic areas.

PCR (and other molecular methods) is more accurate than microscopy. However, it is expensive, and requires a specialized laboratory. Moreover, levels of parasitemia are not necessarily correlative with the progression of disease, particularly when the parasite is able to adhere to blood vessel walls. Therefore more sensitive, low-tech diagnosis tools need to be developed in order to detect low levels of parasitemia in the field.

Efforts to eradicate malaria by eliminating mosquitoes have been successful in some areas. Malaria was once common in the United States and southern Europe, but vector control programs, in conjunction with the monitoring and treatment of infected humans, eliminated it from those regions. In some areas, the draining of wetland breeding grounds and better sanitation were adequate. Before DDT, malaria was successfully eradicated or controlled also in several tropical areas by removing or poisoning the breeding grounds of the mosquitoes or the aquatic habitats of the larva stages, for example by filling or applying oil to places with standing water. These methods have seen little application in Africa for more than half a century.

Sterile insect technique is emerging as a potential mosquito control method. Progress towards transgenic, or genetically modified, insects suggest that wild mosquito popu-

lations could be made malaria-resistant. Researchers at Imperial College London created the world's first transgenic malaria mosquito, with the first plasmodium-resistant species announced by a team at Case Western Reserve University in Ohio in 2002. Successful replacement of current populations with a new genetically modified population, relies upon a drive mechanism, such as transposable elements to allow for non-Mendelian inheritance of the gene of interest. However, this approach contains many difficulties and success is a distant prospect. An even more futuristic method of vector control is the idea that lasers could be used to kill flying mosquitoes.

Indoor residual spraying (IRS) is the practice of spraying insecticides on the interior walls of homes in malaria affected areas. After feeding, many mosquito species rest on a nearby surface while digesting the blood meal, so if the walls of dwellings have been coated with insecticides, the resting mosquitoes will be killed before they can bite another.

Although DDT has never been banned for use in malaria control and there are several other insecticides suitable for IRS, some advocates have claimed that bans are responsible for tens of millions of deaths in tropical countries where DDT had once been effective in controlling malaria. Furthermore, most of the problems associated with DDT use stem specifically from its industrial-scale application in agriculture, rather than its use in public health.

The World Health Organization (WHO) currently advises the use of 12 different insecticides in IRS operations, including DDT as well as alternative insecticides (such as the pyrethroids permethrin and deltamethrin). One problem with all forms of Indoor Residual Spraying is insecticide resistance via evolution of mosquitoes.

Mosquito nets help keep mosquitoes away from people and greatly reduce the infec-

tion and transmission of malaria. The nets are not a perfect barrier and they are often treated with an insecticide designed to kill the mosquito before it has time to search for a way past the net. *Anopheles* mosquitoes feed at night, the preferred method is to hang a large "bed net" above the center of a bed such that it drapes down and covers the bed completely.

Immunity (or, more accurately, tolerance) does occur naturally, but only in response to repeated infection with multiple strains of malaria. Vaccines for malaria are under development, with no completely effective vaccine yet available. The first promising studies demonstrating the potential for a malaria vaccine were performed in 1967 by immunizing mice with live, radiation-attenuated sporozoites, providing protection to about 60% of the mice upon subsequent injection with normal, viable sporozoites. Since the 1970s, there has been a considerable effort to develop similar vaccination strategies within humans. It was determined that an individual can be protected from a *P. falciparum* infection if they receive over 1,000 bites from infected yet irradiated mosquitoes.

Education in recognizing the symptoms of malaria has reduced the number of cases in some areas of the developing world by as much as 20%. Recognizing the disease in the early stages can also stop the disease from becoming a killer. Education can also inform people to cover over areas of stagnant, still water e.g. Water Tanks which are ideal breeding grounds for the parasite and mosquito, thus cutting down the risk of the transmission between people. This is most put in practice in urban areas where there are large centers of population in a confined space and transmission would be most likely in these areas.

A World Without Tuberculosis /lead of the section Dr. Brian Farrugia/

One third of the world's population is thought to be infected with *M. tubercu-*

losis, and new infections occur at a rate of about one per second. The proportion of people who become sick with tuberculosis each year is stable or falling worldwide but, because of population growth, the absolute number of new cases is still increasing. In 2007 there were an estimated 13.7 million chronic active cases, 9.3 million new cases, and 1.8 million deaths, mostly in developing countries. In addition, more people in the developed world contract tuberculosis because their immune systems are more likely to be compromised due to higher exposure to immunosuppressive drugs, substance abuse, or AIDS. The distribution of tuberculosis is not uniform across the globe; about 80% of the population in many Asian and African countries test positive in tuberculin tests, while only 5–10% of the US population test positive.

When people suffering from active pulmonary TB cough, sneeze, speak, or spit, they expel infectious aerosol droplets 0.5 to 5 µm in diameter. A single sneeze can release up to 40,000 droplets. Each one of these droplets may transmit the disease, since the infectious dose of tuberculosis is very low and inhaling fewer than ten bacteria may cause an infection.

People with prolonged, frequent, or intense contact are at particularly high risk of becoming infected. Others at risk include people in areas where TB is common, people who inject drugs using unsanitary needles, residents and employees of high-risk congregate settings, medically underserved and low-income populations, high-risk racial or ethnic minority populations, children exposed to adults in high-risk categories, patients immunocompromised by conditions such as HIV/AIDS, people who take immunosuppressant drugs, and health care workers serving these high-risk patients.

Drug-resistant tuberculosis is transmitted in the same way as regular TB. Primary resistance occurs in persons infected with

a resistant strain of TB. A patient with fully susceptible TB develops secondary resistance (acquired resistance) during TB therapy because of inadequate treatment, not taking the prescribed regimen appropriately, or using low-quality medication. Drug-resistant TB is a public health issue in many developing countries, as treatment is longer and requires more expensive drugs. Multi-drug-resistant tuberculosis (MDR-TB) is defined as resistance to the two most effective first-line TB drugs: rifampicin and isoniazid. Extensively drug-resistant TB (XDR-TB) is also resistant to three or more of the six classes of second-line drugs.

The DOTS (Directly Observed Treatment Short-course) strategy of tuberculosis treatment recommended by WHO was based on clinical trials done in the 1970s by Tuberculosis Research Centre, Chennai, India. The country in which a person with TB lives can determine what treatment they receive. This is because multidrug-resistant tuberculosis is resistant to most first-line medications, the use of second-line antituberculosis medications is necessary to cure the patient. However, the price of these medications is high; thus poor people in the developing world have no or limited access to these treatments.

The World Health Organization declared TB a global health emergency in 1993, and the Stop TB Partnership developed a Global Plan to Stop Tuberculosis that aims to save 14 million lives between 2006 and 2015. Since humans are the only host of *Mycobacterium tuberculosis*, eradication would be possible. This goal would be helped greatly by an effective vaccine.

Immunisation – The Paradigm Of Prevention /lead of the section Dr. Mark Muscat/

Immunisation is the process by which an individual's immune system becomes fortified against an agent, known as the immunogen.

Along with safe drinking water, vaccines have had an impact on health and mortality reduction that by far surpasses any other health strategy, including antibiotics. The 21st Century has brought with it the Papilloma Virus and Rotavirus vaccines.

Immunisation imparts immense economic benefits. The aim is to prevent not just individual infection, but infection in the population as a whole.

The approaches towards immunization were discussed, including mass, selected and routine (childhood) vaccination. The role of mass vaccination during outbreaks was described. The history and outcomes of the measles, cholera, typhoid and meningococcal vaccines were all mentioned.

Measles is still prevalent in Africa and India. The main public health strategies are to sustain high coverage with 2 MMR shots in childhood and to improve surveillance. A recent outbreak occurred amongst the Roma people of Bulgaria. Cases still occur within Traveller groups and ultraorthodox religious groups in the UK and central Europe.

Challenges facing effective immunization are religious beliefs, anthroposophic groups and a general lack of information. Anti-vaccine lobbyists made an issue out of thiomersal in the H1N1 vaccine. It was stressed that health workers must continue to educate the public, enhance surveillance and undergo medical training in Vaccinology.

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The 2011 World Medical and Health Games

A Brief History

Founded in 1978 by “Le Quotidien du Medecin” (a French magazine for the medical professions) and initiated by the journalist Liliane Laplaine-Montheard, the World Medical and Health Games (aka Medigames) have become the most important international athletic event exclusively for health professionals. They are open to all health professionals: doctors, dentists, pharmacists, nurses, veterinarians and students in those majors. The games offer a unique ambiance where the participants can exchange both their professional ideas and life experiences as well as compete in their favourite sports.

23 Sports, One Rallying Philosophy...

For the baron Pierre de Coubertin, the founder of the modern Olympic Games, the beauty of sports and the pure joy in the athletic effort was paramount. It is in this “Olympic” spirit that every year the participants meet in the Medigames. There is a large choice between individual sports (tennis, Judo, swimming, half marathon, squash, golf, gymnastics...) and team sports (volley-ball, beach vol-

ley-ball, soccer, basket-ball...). The week that follows not only offers many athletic competitions but also a variety of entertainments. It ends with a “closing ceremony” in honor of the games.

Sport... for the Neurons

Every year since their creation, and beyond the focus on sports, the Medigames have always been an international forum where several medical themes are studied and discussed, thus allowing the participants to ally sport with a furthering of their professional expertise. This year Dr André MONROCHE (France) will be our president. Finally, the Medigames offer an opportunity to discover a new part of the world every year. After Morocco (2007), Germany (2008), Spain (2009) and Croatia (2010) it is now the turn of the Canary Islands (Spain) to host the games.

The 32nd Edition of the Medigames will take place from July 2nd to July 9th 2011 at Las Palmas De Gran Canaria.

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