The treatment of lifestyle diseases

Debate motion
In a time of budgetary restrictions when healthcare rationing is effectively taking place, it is ethical to restrict access to certain therapies for diseases with major lifestyle components.

Lifestyle diseases
It is only in the last couple of years that it has become clear that lifestyle diseases are killing more people than communicable ones. Non-communicable diseases (NCDs) are slow-progressing, long duration, largely preventable illnesses that result from numerous common modifiable risk factors.

In a time where healthcare is effectively being rationed, there are concerns that a huge proportion of funding is being devoted to treating conditions which are largely preventable. This stimulates ethical questions in relation to the obligation on the State to provide healthcare for all its citizens, which we discuss below.

Stakeholders
The provision of healthcare involves many parties:
- Healthcare providers: focused to delivering the best outcomes to their patients
- Patients: may be unaware of the impact their lifestyle may have had on their health – unwilling or unable to alter certain risk factors
- Community
- Advertisers: The irresponsible marketing of unhealthy foodstuffs and items such as cigarettes has been highlighted
- Public health staff: aim to provide education on the prevention of illness but also hampered by lack of resources
- Insurance companies: paying out more and more as people live longer with chronic illnesses
- Scientific and clinical researchers: huge amount of funding going into developing effective treatments for these conditions
- Industries such as pharmaceutical companies, who gain financially from developing therapies that treat but do not cure chronic illnesses
- Government: In era of fiscal rectitude every single aspect of health budget is scrutinised. Those with long term illnesses receive free health care/medicines.
- Ethicists: the ethics of streamlining treatments for those with modifiable lifestyle factors raises a number of ethical questions

What are lifestyle diseases?
Diseases with large lifestyle components include
- Lung cancer as a result of smoking
- Cardiovascular diseases
- Renal disease (kidney disease)
- Chronic respiratory diseases
- Diabetes (Type 2)

In addition to population ageing, non-communicable diseases are driven by the negative effects of globalisation such as unfair trade and the marketing of unhealthy products.

Social determinants, such as low levels of education and poverty, are associated with risk factors of NCDs (namely smoking, alcohol consumption and poor diet).

Four major NCDs—cardiovascular diseases, cancers, chronic respiratory diseases and diabetes—account for 80% of NCD deaths, and four modifiable risk behaviours—tobacco use, unhealthy diet, physical inactivity and harmful use of alcohol—cause the majority of NCD deaths.
Non-communicable diseases represent an increasingly heavy societal and economic burden as people are living longer with chronic illnesses due to lower death rates and increased life expectancy.

The HSE has estimated that non-communicable diseases are responsible for 80 per cent of GP consultations, 70 per cent of healthcare spending, and 60 per cent of hospital bed days in Ireland.

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body’s systems, especially the nerves and blood vessels.

Type 2 diabetes (formerly called non-insulin-dependent or adult-onset) results from the body’s ineffective use of insulin. Type 2 diabetes comprises 90% of people with diabetes around the world, and is largely the result of excess body weight and physical inactivity.

**Health Complications**

Diabetes increases the risk of heart disease and stroke, with approximately 50% of people with diabetes eventually dying of cardiovascular disease (primarily heart disease and stroke).

There are a large number of microvascular complications associated with Type 2 diabetes.

- **Diabetic retinopathy** occurs as a result of long-term accumulated damage to the small blood vessels in the retina and leads to blindness. After 15 years of diabetes, approximately 2% of people become blind, and about 10% develop severe visual impairment.

- **Diabetic neuropathy** is damage to the nerves as a result of diabetes, and affects up to 50% of people with diabetes. Although many different problems can occur as a result of diabetic neuropathy, common symptoms are tingling, pain, numbness, or weakness in the feet and hands. Combined with reduced blood flow, neuropathy in the feet increases the chance of foot ulcers and eventual limb amputation.

- **Diabetic nephropathy** (kidney disease) often presents in conjunction with other diabetic complications, including high blood pressure and retinopathy. The primary function of the kidneys is to rid the body of the waste produced through the breakdown (metabolism) of protein to an active energy form. The main waste product is urea, which is normally passed out of the body in the urine. If the kidneys malfunction, urea builds up in the body, accumulating in the kidneys, bloodstream and elsewhere. If this waste builds up over time, kidneys begin to fail. Kidney disease is irreversible and is associated with an increased risk of heart attack and stroke. Globally, diabetic nephropathy is the leading cause of kidney failure requiring renal replacement in the form of dialysis or kidney transplant.

Other diabetic complications include cardiomyopathy (damage to the heart), foot ulcers and delayed healing in wounds and bone fractures.

The overall risk of dying among people with diabetes is at least double the risk of their peers without diabetes. (WHO 2012)

**Treatment Required**

Treatment for Type 2 diabetes is in the form of lifestyle alterations, and then medication if necessary. Some diabetic complications may require more drastic intervention, such as surgery. Healthy diet, regular physical activity, maintaining a normal body weight and avoiding tobacco use can prevent or delay the onset of Type 2 diabetes.
Key Statistics

- An estimated 347 million people worldwide have diabetes.
- In 2004, an estimated 3.4 million people died from consequences of high blood sugar (hyperglycaemia).
- More than 80% of diabetes deaths occur in low- and middle-income countries.
- WHO projects that diabetes deaths will increase by two thirds between 2008 and 2030.
- It is estimated that there are 191,380 people with diabetes in Ireland or 6.1% in the population (2013).
  It is thought that by 2030 there will be 278,850 people with the condition (with a prevalence of 7.5% in the population).
- 10-20 per cent of people who die from diabetes do so from kidney failure.
- In Ireland between 400 and 450 patients develop end stage kidney disease each year.
- Between 2007-2011 in Ireland, the number of people with end stage kidney disease increased by 20 per cent and the number of people requiring dialysis increased by 15 per cent (HSE 2012)
- The global number of patients on renal replacement therapy has risen from 1.5 million in 2000 to 2.5 million in 2010. 80% of these patients live in the developed world because in developing countries it is largely unaffordable.
- 2011 produced a record number of kidney transplants in Ireland, with 192 procedures performed, of which 27 were donated by living donors.
- The cumulative global cost for dialysis and transplantation is predicted to exceed US$ 1 trillion over the next decade.

Ethical Questions

The ethics involved in the treatment of lifestyle-related diseases must be looked at in the broader societal context.

Can we confidently describe these conditions as lifestyle related diseases?
These diseases may be better described as complex diseases which could have underlying complex genetic components of which we are not yet aware. Many non-communicable diseases have complex etiology where there is a clear lifestyle component but also a potential genetic, unmodifiable component.

Can we ration healthcare?
A doctor may find it impossible to refuse treatment to a patient, yet an insurance company may refuse to pay for this treatment, or the Government may no longer fund it.

Aside from the financial aspects, the doctor’s own ethics will come into play, as he/she feels an obligation of care towards all their patients.

“The main ethical objection to rationing is that physicians owe an absolute duty of fidelity to each individual patient, regardless of cost. This objection fails, however, because when resources are exhausted, the patients who are deprived of care are real people and not statistics” – Dr Howard Brody, New England Journal of Medicine, 2012

Medical card restrictions are beginning to take effect following a sharp rise in the number of cards issued since the beginning of the global recession. Medical card entitlements have been removed for a certain proportion of people over 70 in recent times.

Are the Government responsible for disease prevention?
Should it be that the Government are responsible for effective health promotion and should work to building a culture of healthy living which would reduce the prevalence of chronic lifestyle diseases in the future? Health promotion has suffered drastically reduced funding in recent years.

It is known that socioeconomic status (SES) and health expectancy are strongly linked. What can be done in this regard? Why are wealthier people healthier?

Should genuine health risks be distinguished from personal lifestyle choices? Everyone would like to be healthy but do many of us decide to act in a non-healthy manner regarding our diets and lifestyle? Is the burden on each individual person?
Non-communicable diseases:
- About 80% of heart diseases and stroke, 80% of Type 2 diabetes and over 30% of cancers can be prevented by eliminating common risk factors.
- Of the 57 million deaths that occurred globally in 2008, 36 million (~2/3rds) were due to non-communicable diseases: mainly cardiovascular diseases (heart disease, stroke), cancers, diabetes and chronic lung diseases (2010 Global status report on non-communicable diseases, WHO)
- The WHO estimates that 87 per cent of all deaths in Ireland in 2008 were caused by non-communicable diseases.
- Reducing the total energy from trans and saturated fat, reducing salt consumption, and increasing fruit and vegetable intake by 1 portion per day could result in an 8% decrease in the number of deaths from cardiovascular disease.

Deaths by disease in Ireland and the UK in 2002 (WHO)

<table>
<thead>
<tr>
<th>Disease</th>
<th>Ireland</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alzheimers and other dementias</td>
<td>400</td>
<td>3,200</td>
</tr>
<tr>
<td>Arthritis</td>
<td>200</td>
<td>4,200</td>
</tr>
<tr>
<td>Cardio- and cerebrovascular diseases</td>
<td>12,300</td>
<td>229,000</td>
</tr>
<tr>
<td>Diabetes</td>
<td>400</td>
<td>6900</td>
</tr>
<tr>
<td>Multiple Sclerosis</td>
<td>0</td>
<td>900</td>
</tr>
<tr>
<td>Parkinsons</td>
<td>200</td>
<td>3,300</td>
</tr>
<tr>
<td>Total deaths in 2002</td>
<td>13,500</td>
<td>257,500</td>
</tr>
</tbody>
</table>

Legislation and Regulatory Authorities

Defining a scenario in which a patient should or should not receive treatment would be extremely difficult. It may be that in certain cases, treatment is limited, or perhaps only delivered for a specific time.

Limiting treatment brings its own legal dilemmas. In what scenario does a doctor refuse to treat? Should the frequency of treatment be limited or should there be particular circumstances in which the healthcare provider discharges the patient?

One option may be conditional treatment – whereby a patient must fully cooperate with the advice of the healthcare authorities before a full regime of treatment is initiated e.g., cede smoking, lose weight, etc. However, this would be difficult to monitor in practice.

Regulations in this context would have to be clear and without ambiguity so as to not leave the medical practitioner or healthcare professional open to any legal action based on a failure to treat.

At the moment those with chronic illnesses receive free medicines under the Long Term Illness scheme. Free GP care is also to be introduced for these patients. Healthcare rationing could mean that those with chronic diseases must pay for their own medications.

As the current Government works towards a system of Universal Healthcare for all, all citizens will essentially be contributing to their own healthcare via the income tax system. If and when this happens, should those with chronic diseases contribute more?

Healthcare rationing is already ongoing in the form of analysing the cost effectiveness of drugs. Each new drug reaching the market is subject to a cost effectiveness assessment by the National Centre for Pharmacoeconomics. If the Centre determines that a drug is effective but too costly, they do not recommend that the State reimburses it for patients.

Sources and Further Reading

For a collection of relevant news stories and references, visit the website of one of the DSI co-ordinating centres:

- www.remedi.ie
- http://apc.ucc.ie
- www.bdi.ie
- www.rcsi.ie
- www.cit.ie
- www.w5online.co.uk
- www.crossborder.ie
- www.crann.tcd.ie
- www.clarity-centre.org

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