

Underwriting Focus

Graduates of the “Certified Medical Underwriting Specialist (CII)” Course

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From 20 to 24 June 2005 16 underwriters from primary insurers all over Europe attended Module 4 of the Gen Re Medical Underwriting Programme in Cologne organised by the Gen Re Business School.



Upon successful completion of the full course programme of four modules, this group is the first to acquire the CUS “Certified Medical Underwriting Specialist (CII)” qualification. Congratulations!

Congratulations to the Graduates – Observations from Gen Re



*Jutta Eich
Senior Vice President
Gen Re LifeHealth /
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We proudly present to you the first graduates of our Gen Re Medical Underwriting Programme. They passed their exams successfully and are now Certified Medical Underwriting Specialists (CII) for the life insurance industry. The Chartered Insurance Institute (CII) has accredited this demanding programme recently. This was another milestone in the longstanding success story of the Gen Re Business School.

With more than ten years of experience the Gen Re Business School is the leading expert for professional training programmes for insurance companies. We enable life long learning by providing comprehensive training programmes combining innovative educational concepts with professional speakers and trainers. With more than 1000 participants per year we have a proven track record of the quality and value of our programmes.



*Bernhard Geismann
General Manager
Gen Re LifeHealth,
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Central Europe is a region with a broad cultural variety, where the life insurance industry has been emerging at a tremendously high speed in the last decade. What unites the markets in this region is the strong conviction of the need for underwriting discipline.

With the “Gen Re Medical Underwriting Programme” of the Gen Re Business School we are providing the necessary training tool for our clients. Its CUS qualification endorsed by the CII guarantees a high reputation in the insurance industry. It is perceived as the most professional offer in the market and helps our clients to manage the underwriting challenges of our rapidly changing insurance world.



*Ross Campbell
Chief Underwriter
Gen Re UK, London
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For several years UK insurers have been under pressure to meet the demands of their customers and to survive in a competitive market driven by rate and service. A key advantage in meeting customer and distributor expectation is the quality of the underwriting service.

The UK has seen some decline in formal training as an integral part of underwriter career development. Strong demand for underwriting skills means trainees are often moved to front line tasks as swiftly as possible.

The CUS qualification that derives from Gen Re Business School's underwriting programme offers UK companies the opportunity to develop their underwriters' technical training backed by a commercial qualification from a recognised body; the Chartered Insurance Institute (CII).

As a member of the education committee of the Assurance Medical Society (that sets and marks the exams for the CII underwriting diploma), I welcome this opportunity for underwriters to grow their

technical skills with career specific qualifications.

Companies whose underwriters hold such qualifications will, in my view, be well placed to deliver underwriting decisions and service that exceed the expectations of their customers.

Graduates of the Gen Re Medical Underwriting Programme 2004/2005:

Petra JIM Audenaerdt, NV Interpolis, Tilburg/The Netherlands

Eugenia Cristina Birta, ASIBAN Insurance, Bucharest/Romania

Ileana Cozma, AVIVA Asigurări de Viață SA, Bucharest/Romania

Bryan Gross, Gen Re LifeHealth, London/Great Britain

Amina Koljić, Raiffeisen Insurance, Sarajevo/Bosnia and Herzegovina

Orla McGlynn, Canada Life Assurance Europe Ltd, Dublin/ Ireland

Daniel Mihai, Omnisig Life Insurance, Bucharest/Romania

Florin Mihalcea, Omnisig Life Insurance, Bucharest/Romania

Nataša Miklič Strizovič, Merkur Zavarovalnica dd, Ljubljana/Slovenia

Anamaria Morosan, Omnisig Life Insurance, Bucharest/Romania

Dr Koray Onuk, Yapi Kredi Sigorta AS, Istanbul/Turkey

Philippus Pierides, Laiki Cyprialife Ltd, Nicosia/Cyprus

Tomasz Rosloniec, Pramerica Zycie Towarzystwo Ubezpieczeń, Warsaw/Poland

Dr Laura Staiu, SARA MERKUR SA, Bucharest/Romania

Dr Bashar A Tawalbeh, Jerusalem Insurance Co Ltd, Amman/Jordan

Nicoleta Toma, Omnisig Life Insurance, Bucharest/Romania

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A Look Around the World



*Friedrich Müller
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We observe a continuous evolution of underwriting requirements in many European markets. This is related to multiple factors:

- Appearance of new risks or coverages
- Progress in medicine with new diagnostics and new treatments
- Underwriting of elderly people

All these issues represent a new challenge for the life insurance industry in Europe, for more mature markets as well as for the markets in Eastern Europe.

Our market representatives support our clients with their expertise and in-depth knowledge of the respective markets. Let us introduce to you some of our colleagues and their view at vital issues in their markets:



*Ingrid Bernegger
Senior Underwriter
Gen Re LifeHealth,
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Vienna – the gateway towards Eastern Europe not only in the wider world of politics but also in the smaller one of insurance. As underwriters of the Gen Re Vienna, my colleague Beata Michtner and I are not only confronted with the risk management of Austrian life insurance companies but with underwriting issues of our clients in Eastern Europe which present different underwriting challenges.

Increasingly we are faced with many unexpected issues, that is why we rely on the support in this field on well trained underwriters of our client companies in order to help them in meeting these underwriting challenges.



*Marion Fournier
Medical Officer
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Our underwriting services have been extremely well accepted in the French market. As a consequence, our department in Paris has had to hire new people in response to the quadrupling of the number of files over the past few years. Our team now consists of a full time medical director (head of department) and three senior underwriters.

In order to ensure close working with our customers in a collegial manner that is based on knowledge transfer, in 2003 we inaugurated an underwriters' training course. This approach strengthens our ties with our customers and gives clear expression to our underwriting rules and practices.



*Vladimir Ignashin
Account Executive
Gen Re Moscow
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As in many other developing countries the environment here is tough for underwriters: a low level of risk awareness among the general population, low sums assured and premiums, high costs of laboratory tests and medical examinations, limited

number of trained underwriters. So it is especially important for us to find a correct balance between costs and benefits of underwriting decisions in everyday situations.

On the positive side I can name the growing demand for credit and mortgage life covers, increased number of specialised life insurers and better understanding of need for underwriting among the direct companies. We address the needs by offering a broad range of services to our clients including, but not limited to the Underwriting Manual in Russian, referral underwriting service, training and product development.



*Bernhard Wolters
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As an account manager in Gen Re LifeHealth I have been involved in various markets of the EMEA-region (Europe, Middle East, Africa) ever since I joined the company 10 years ago. My task consists in developing and maintaining mutually beneficial transactions with our business partners. The profitability of such transactions depends on proper medical underwriting and claims assessment.

In some countries, however, insurers have to observe legal and cultural restrictions. In the Netherlands, for instance, underwriting and claims assessment are subject to well-defined boundaries. Until recently, Dutch insurers were not even allowed to question the cause of death in case of a doubtful claim. Today they can hand over the file to an independent committee for further investigation. The committee's decision is binding for the insurer.

In the Focus: Obesity and Mortality Risk

“In the early days insurance companies attached considerable importance to the appearance and build of an applicant, but with advances in medical science it became unnecessary to rely on physical appearance alone for the estimation of the risk involved. Nevertheless the information conveyed by build is still important today. Excessive body weight is often the sole physical manifestation of a faulty constitution which otherwise may only be suspected, either because of an unfavorable family history or the pattern of previous sickness.”

This is how Brackenridge begins the chapter on “Build” in his *Medical Selection of Life Risks* (ed. 4/2000, p. 250). By and large, things have remained unchanged since then.

Studies continue to show a strong positive relationship between obesity and the risk of major coronary heart disease such as fatal and non-fatal myocardial infarction, with increasing relative risk if the obese individual is a current smoker. Similar cumulative risks occur in individuals who are obese and hypertensive, diabetic or hypercholesterolemic (resulting in the metabolic syndrome; see e.g. The Framingham Study).

Even though underweight recently has not been as much in the spotlight as obesity, the underwriter must pay attention to male applicants with a BMI lower than 18 % (women: 17.5 %) as well, since un-

derweight people are e. g. prone to get osteoporosis or suffering from anorexia already.

On this background this edition of the “Underwriting Focus” provides you with interesting articles that centre on overweight and underweight as risk factors. To begin with, hyperlipoproteinemia often occurs in combination with obesity. This is why we take a closer look at how laboratory results can help assessing cases of hyperlipoproteinemia.

Obese adults have often been obese already in their childhood and vice versa: many overweight children become obese adults. Marlis Ostermann-Myrau, Chief Medical Officer at Gen Re Cologne, explains why obesity in childhood is given a special rating that differs from the rating for adults.

From a statistical point of view, Dr Christine Graf presents the results of a project addressing overweight and obese children in primary schools.

Diseases that are frequently connected with overweight and – equally, if not more often – underweight are eating disorders. Dr Michael Huber gives an overview of bulimia and anorexia as the two most common eating disorders.

To round up this topic, we discuss four case studies on obese individuals as well as those with eating disorders or hyperlipoproteinemia.

Hyperlipidemia, Hyperlipoproteinemia

Fat Metabolism Disorders from the Underwriting Perspective

The existence of cholesterol and triglycerides in the blood is not only perfectly normal but necessary. Only when these substances exceed a certain level does a fat metabolism disorder arise with far-reaching complications and effects.

Jürgen Warstat gives an overview of fat metabolism disorders, which represent the greatest risk factor for the development of life-shortening diseases such as atherosclerosis, coronary heart disease or pancreatitis.



*Jürgen Warstat
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Lipids (fat substances) do not occur pure in the blood but are always bound to proteins and thus are sol-

uble and can circulate (→ lipoproteins). Lipoproteins are divided into the following groups:

Lipoprotein Group	Meaning of Acronym	Function and Composition	Distribution (%)*
VLDL	Very Low Density Lipoproteins	Transport fats produced by the liver to tissue (55 % triglycerides, 20 % cholesterol); prebeta lipoproteins	10
LDL	Low Density Lipoproteins	Transport cholesterol from the liver to tissue; beta lipoproteins; contain 3/4 of the total cholesterol in serum; high risk of atherosclerosis	70
HDL	High Density Lipoproteins	Return cholesterol from tissue to the liver; alpha lipoproteins; protective factor	20

* = Distribution in fasting serum

A distinction is made between the following forms of hyperlipidemia:

- Primary fat metabolism disorders (10 % of total cases; either hereditary metabolic disorder [familial hypercholesterolemia] or as reaction to nutritional factors [e.g. alcohol intake, high-calorie food]).
- Secondary fat metabolism disorders (approx. 90 % of cases; induced by underlying causes such as obesity, poorly controlled diabetes mellitus, alcohol abuse, thyroid hormone deficiency, liver diseases, cholestasis, pancreatitis, nephrotic syndrome).

Hyperlipoproteinemias often occur in combination with obesity, pathologic glucose tolerance or Type II diabetes and arterial hypertension. This group of disorders is collectively referred to as "metabolic syndrome" and significantly increases the risk of premature atherosclerosis.

Based solely on the levels of triglycerides and total cholesterol (not including the various cholesterol transporting components), a distinction can be made between three groups of hyperlipidemias:

- Hypercholesterolemia (> 200 mg/dl)
- Hypertriglyceridemia (> 200 mg/dl)
- A combination of the above types (elevated levels of both cholesterol and triglycerides)

The table on page 6 shows the relationship between the various types of hyperlipidemia under the classification system developed by Fredrickson (based on cholesterol and triglyceride levels) and the risk of atherosclerosis due to the elevated level of the particular fats.

Common Tests/ Diagnostic Methods

- Measurement of total cholesterol in serum
- Measurement of HDL cholesterol (always necessary if total cholesterol > 240 mg/dl)
- Measurement of triglycerides in serum (if value is below 400 mg/dl, LDL can be calculated using the Friedewald formula: $LDL = total\ cholesterol - HDL\ cholesterol - \frac{triglycerides}{5}$)
- Measurement of LDL/HDL ratio (normal > 5)

Cholesterol (mg/dl)	Triglyceride (mg/dl)	Fredrickson type (% of cases)	Elevated Lipid Fraction	Risk of Atherosclerosis
< 260	200 – 1,000	IV (65–70%)	VLDL; Triglycerides	High
< 260	> 1,000	I (rare)	Chylomicrons; Triglycerides	Low
> 400	> 600	V (rare)	VLDL, Chylomicrons	High
> 300	< 150	Ila (12%)	LDL (beta lipoproteins)	Very high
> 300	150 – 300	IIb (12%)	LDL and VLDL	Very high
350 – 1,000	350 – 1,000	III (5%)	LDL + wide band of beta lipoproteins	Very high

- Measurement of total cholesterol/HDL ratio (important prognostic indicator; normal/favourable prognosis < 5)

Treatment

The first step for all types of hyperlipidemia involves dietary intervention to reduce lipid intake and normalize weight.

The second step is geared towards eliminating additional risk factors (patients should stop smoking, limit alcohol consumption and – if necessary – undergo treatment for diabetes, hypertension and thyroid dysfunction).

Drug therapy should only be introduced as a third step once normal weight has been achieved and if cholesterol/triglyceride levels remain above 300 mg/dl despite a proper diet. (Such cases usually involve familial hereditary hyperlipidemias or genetically determined metabolism defects.)

The following antilipemic agents are used:

- **Fibrates:** a group of substances that, among other things, increase the uptake of LDL in the liver and suppress the synthesis of VLDL in the liver: prescribed for Type III, IIb and IV hyperlipidemias
- **Nicotinic acid derivatives:** reduce VLDL synthesis, lower LDL

cholesterol and triglycerides; prescribed for Type II, III, IV and V hyperlipidemias

- **Ion exchangers:** lower LDL cholesterol by binding bile acids (containing cholesterol) in the small intestine; prescribed for severe cases of Type Ila and IIb hyperlipidemias
- **Cholesterol synthesis enzyme (CSE) inhibitors:** inhibit the key enzyme in cholesterol synthesis, thus leading to a reduction of LDL cholesterol in serum; prescribed for Type Ila and IIb hyperlipidemias

LDL apheresis (plasma apheresis) is performed in the case of severe familial hypercholesterolemia and documented coronary heart disease (heparin-induced extracorporeal LDL precipitation → HELP; blood purification procedure akin to dialysis). Typical complications associated with fat metabolism disorders are atherosclerosis and its secondary disorders such as coronary heart disease, heart attack, occlusive arterial disease and stroke.

Prognosis

The prognosis for patients with a fat metabolism disorder largely depends on the type of disorder (familial hyperlipoproteinemia, for example, has an unfavourable prognosis), the blood fat levels, the amount of lipid profile improvement achieved, the age and sex of

the patient and the duration of the disease, the existence of additional risk factors and disorders (smoking, alcohol consumption, diabetes, etc.) and the degree of atherosclerosis that has already developed.

It has been shown that the incidence rate of coronary heart disease, for example, increases linearly above a certain threshold value (total cholesterol = 200 mg/dl, LDL cholesterol = 150 mg/dl). A rise in the levels of these blood fats by 50 mg/dl each doubles the risk of disease. It is interesting to note that if total cholesterol is normal, the risk of contracting coronary heart disease increases significantly if the level of HDL cholesterol is too low. (The incidence rate is four times higher for HDL values below 35 mg/dl than for values above 55 mg/dl!)

Conversely, more recent studies have indicated that a rise in HDL cholesterol by 1 mg/dl reduces the coronary risk by around 2%. Other studies have demonstrated that a mere change of lifestyle can favourably influence the progression of coronary sclerosis, for example, and that lipid reduction therapy can cut the progression and frequency of cardiovascular events. In addition, the regression of atheromatous changes has even been observed in response to proper therapy (“dissolution of coronary calcium”).

However, if several risk factors are present, as is the case with metabolic syndrome, for example, the patient’s risk of developing a coronary or vascular disease can be up to 16 times higher than it is for other people of the same age without that particular risk profile (cf. the Framingham study).

Underwriting procedure

A truly accurate assessment of the risk is only possible on the basis of a reliable diagnosis and the determination of any secondary disorders.

The primary source of information is the medical attendant report, as the

person to be insured is rarely familiar with the complex tests and their findings.

The first approach is to check whether the client has, in addition to hyperlipidemia, one of the following disorders:

- diabetes mellitus
- hypertension
- obesity.

In these cases, the respective disorder will be assessed and hyperlipidemia is regarded as secondary risk factor.

- **Isolated hyperlipidemia** will in principle be assessed on the basis of the LDL level. If the HDL level is also known, a correction can possibly be made.

- If the LDL result is unknown, but total cholesterol, HDL and triglyceride levels (triglyceride below 400 mg/dl), the LDL level will be calculated using the Friedewald formula (see above) and assessment will be made on the basis of the LDL level.

- If the LDL result is unknown, but total cholesterol, HDL and triglyceride levels (triglyceride above 400 but below 600 mg/dl), the risk will be assessed on basis of the total cholesterol level (a correction by HDL level can possibly be made) and an extra mortality for Life cover will be added.

- If the LDL result is unknown, but total cholesterol, HDL and triglyceride levels (triglyceride above 600 mg/dl), refer to your CMO.

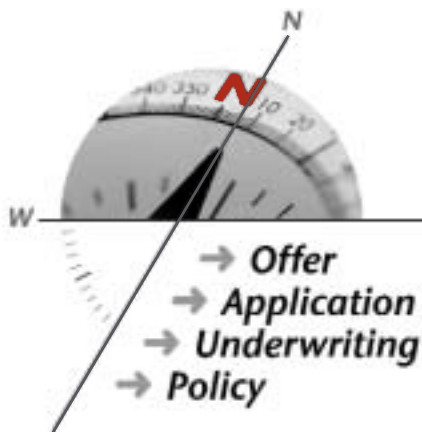
- If only the total cholesterol level is known, assess by total cholesterol level.

- If several results are given, take the average value of the last 12 months.

In summary, the underwriter should always check for manifest atherosclerotic changes which can lead to, for example, coronary heart disease, heart attack, stroke or peripheral occlusive arterial disease (POAD).

In the case of secondary hyperlipidemias, complications arising from the underlying disorders must be taken into consideration.

COMPASS – A Tool for Automated Underwriting



Do you know how to enable your underwriter to spend sufficient time for complex cases although the business is increasing? Using the Gen Re underwriting system COMPASS automates the bulk of business in a consistent and reliable way. Beside other benefits of using COMPASS, the underwriter is freed of routine tasks and can spend his time for the complex cases.

Based on our vast expertise we have developed our life and disability underwriting system, which has become one of our most successful service products. Major insurance companies around the globe have been using our system in production environments since 1993.

Country-specific versions of COMPASS are available, geared not only to different languages but also diverse underwriting approaches and benefits. The system is available for use at various sites, e.g. the head office, the bank counter, during agents' meetings with the client, on the Internet or for tele-underwriting.

COMPASS can process all incoming applications for Life, ADB, Disability, LTC, Critical Illness, Dismemberment, Debility and Health products. It can produce a variety of results: immediate policy issue; loadings; requests for further documents; forwarding applications to underwriters and declining applications. Stan-

dard assessments for over 25,000 occupations, 15,000 medical conditions and 400 pursuits exist in COMPASS and can be maintained by the underwriter with our comprehensive maintenance program.

Tailor-made application processing leads to immediate underwriting decisions for up to 85 % of the cases. The not directly processed cases will be assessed by the underwriter based on our manual CLUE which includes assessment guidelines for substandard risks.

For further information on our underwriting systems please contact Sabine Fischer-Hamm (fischers@genre.com).

Obesity in Children – A Risk-relevant Disorder From an Insurance Medicine Perspective?



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Until recently insufficient attention was devoted to obesity in children in paediatric science. Not until the media spotlight increasingly began focusing on revealing the problem of extremely obese people in the United States and commentators even began speaking of an epidemic did observers in the European industrial nations start to notice the development in their own countries.

It was within this framework that rising gains in weight at various ages in children and adolescents were registered. In Germany, too, to this day the subject is frequently discussed along emotionally politicized lines. Only in the last two years has a generally recognized definition of obesity and adiposity in children and adolescents been established for Germany (AGA).

Definition

The so-called body mass index (BMI) is recommended for the purpose of defining obesity and adiposity in general.

BMI = body weight (kg)/body size (m²). In the case of children and adolescents this measured value must be modified depending on age and gender, since growth and pubertal development generate changes in their physical composition. For this reason, population-specific BMI percentiles have been established for boys and girls in Germany. For this purpose 17,147 boys and 17,275 girls between the ages of 0 and 18 were examined. Obesity is defined above the 90th BMI percentile. Adiposity begins from the 97th BMI percentile mark upwards. Extreme adiposity begins if the BMI exceeds the 99.5 percentile mark.

Epidemiology

According to this definition, 10–20 % of all schoolchildren and adolescents in Germany are overweight. It must be taken very seriously that the scale of adiposity, and thus the number of extremely adipose children and adolescents, is increasing at a far greater rate than the general weight gain trend. Children and adolescents who are already very overweight will be becoming even more obese.

Causes

The causes encompass a plurality of factors and are partly due to changed living conditions, such as family and social structures (e.g. “fast food” involving excessive caloric intake) and physical inactivity in the age of the computer, and partly due to genetic disposition. Overweight parents, a certain ethnic background and a low social status (judged by the income and standard of education of the parents) are additional risk factors in the emergence of obesity.

Obesity and illness

Today, obesity is regarded as a chronic illness and not as a biological characteristic. The illness value of obesity in children and adolescents is the product of various components:

- Locomotion apparatus restrictions in affected persons (excessive strain on the joints, sporting activities are more difficult)
- Psycho-social disadvantages (obese children are quite often avoided, have fewer friends and suffer lower self-esteem which, in turn, is a risk factor in eating disorders. The ideal of an extremely slim figure by which all children and adolescents judge themselves is still being propagated.)
- High co-morbidity (lipometabolic and glycometabolic disorders, hypertension)
The existence of increased morbidity in children has been established in examinations. Approximately fifty percent of obese children and adolescents suffer from at least one complication, such as high blood pressure, a lipometabolic disorder or diabetes mellitus type II (which was previously only found in adults).

Prevention and therapy

The prevention of obesity in children is a major health policy task. Meticulous documentation of size and weight data during all preventive medical examinations is as important as meticulous trend development observation. Sports training and coaching programmes commencing as early as possible and nutrition are the major treatment options. Experience shows that only activities, which enjoy full parental approval, hold out the promise of success.

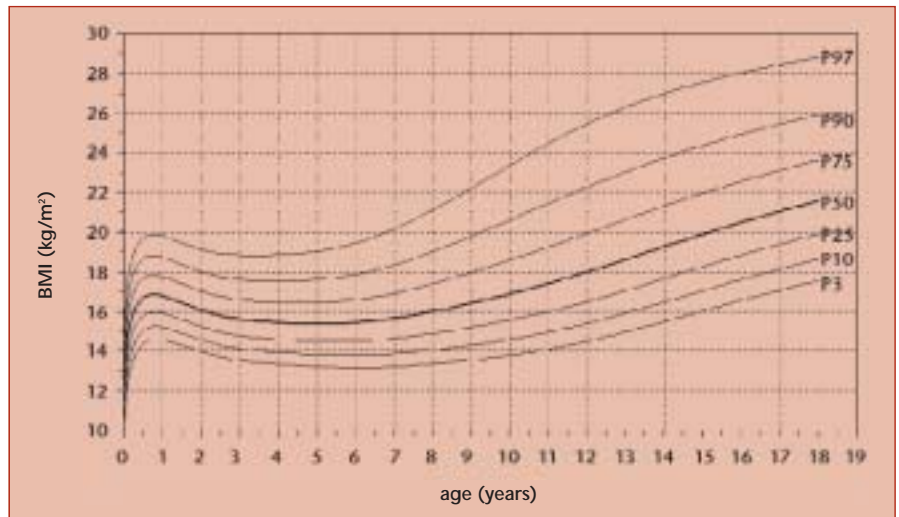
The "diet yo-yo effect", which is also observed in children and adolescents, is dreaded. This effect must also be regarded as constituting the initial stages of the development of anorexia and bulimia. An extremely high percentage of adolescents have undertaken one or more fruitless attempts at dieting by the age of eighteen (their ideal: a Twiggy figure).

Insurance medicine aspects

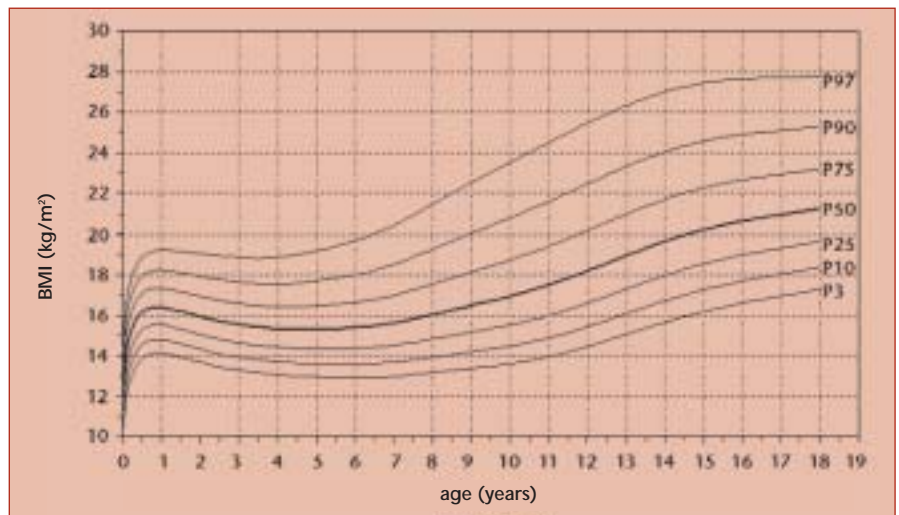
Obesity in children and adolescents in particular requires a rating and an extra mortality loading because

- corpulent children become obese and adipose adults with the corresponding co-morbidity of atherosclerosis and cardiovascular conditions, and
- this co-morbidity is today already documented in children and adolescents.

On the basis of current studies we rate obesity in children higher than in adults in our new manual due to the fact that co-morbidity commences at an earlier point in time, meaning that the resulting mortality rate is all the higher.



Percentiles for the body mass index of boys between the ages of 0 and 18



Percentiles for the body mass index of girls between the ages of 0 and 18

Overweight and Obesity in Childhood

– Universal, Selective and Indicated Prevention – Data from the CHILT Project

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Senior Physician at
the Institute for
Circulatory Research
and Sports Medicine,
German Sports
University, Cologne*

The prevalence of obesity among children and adolescents in developed and developing countries is increasing. The combination of inactivity, excessive energy intake, lower socio-economic status and a possible genetic predisposition is playing an increasingly significant role in this process. Obesity among adolescents and young adults is associated with fatty streaks, raised lesions, and calcifications in the aorta and coronary arteries.

The recently published study by Muntner et al. demonstrated a rise in blood pressure in childhood between 1988 and 2000, which is partially attributable to the increase in overweight and obese children. Within the special sample of 520 obese children in the Murnauer co-morbidity study, 35 % revealed a (pre)metabolic syndrome, 7 % impaired glucose tolerance or diabetes type II.

Overweight children are also at increased risk for various chronic diseases later in life. High childhood blood pressure and an increased body mass index were consistently the two most powerful predictors of adult high blood pressure across all ages and both genders.

Measures must be taken to counteract this development. However, the best way to deliver such interventions to children is not yet known.

Worldwide, school-based programs with an emphasis on a healthy lifestyle have provided inconsistent results. A recently published Cochrane review included 22 studies, most of which lasted less than 12 months. A small but positive impact was found on BMI status and an improvement in diet or physical activity. Nevertheless, Summerbell et al. concluded that there is limited high quality data documenting the effectiveness of obesity prevention programs and that further research is needed.

The CHILT (Children's Health Interventional Trial) project represents a cascaded concept. The first step, CHILT I, which was geared towards universal prevention, started at 12 primary schools in 2001. Teachers held lectures on health-related issues and promoted the idea of increased activity during time at school and in daily life.

Selective prevention, which was introduced as CHILT II or STEP TWO ("sports nutrition prevention"), combined cooking with physical activity for overweight and obese children at three of the participating primary schools twice a week.

CHILT III is an outpatient interdisciplinary family-based program outside of primary school but included obese children aged eight and above in a one-year interdisciplinary educational concept. The results of all three steps are presented below.

CHILT I

This school-based program combines health education and increased physical activity in primary schools. Primary endpoints were to see what effects the intervention had

1) on the incidence of overweight and obesity, and

2) on motor abilities after nearly four years.

Methods: The anthropometric data were analysed, BMI was calculated. Gross motor development was determined by a body coordination test (KTK) and endurance performance by a six minute run.

Results: No difference in the prevalence of overweight and obesity was found between the intervention (IS) and control schools (CS) either at baseline or in the final data (each $p > 0.05$). There was no difference between the result of the endurance performance and the complete KTK, although the performance in lateral jumping and balancing backwards was better in the IS than in the CS ($p = 0.005$; $p = 0.007$), adjusted for age and the result of the entrance examination, gender and BMI classification at final examination. Overweight and obese children produced significantly lower scores in all tasks than their counterparts (each $p < 0.05$).

CHILT II – STEP TWO

The effect of a school- and family-based intervention consisting of extra lessons, healthy nutrition and physical education for overweight and obese children in school grades 1 through 4 was examined on the anthropometric data, obesity parameters such as body mass index, bioelectric impedance, body mass index standard deviation score, waist and hip measurements and waist to hip ratio as well as blood pressure.

Methods: Anthropometric data, bioelectric impedance analyses and waist and hip circumferences were recorded for 1,689 children; body mass index, body mass index standard deviation score and waist to

hip ratio were calculated. Blood pressure was measured after 5 minutes at rest. A total of 121 children from the three intervention schools were invited to take part, 40 (33.1 %) completed the program. Their data were compared with the data of 155 overweight and obese children at the four control schools.

Results: 830 (49.5 %) boys and 848 girls (50.5 %) took part; mean age: 8.2 ± 1.3 yrs.; height: 1.31 ± 0.09 m; weight: 30.0 ± 8.2 kg; mean body mass index: 17.1 ± 2.9 kg/m². A total of 7.3 % of the children were obese, 10.4 % overweight, 75.7 % normal weight, 6.6 % underweight.

Resting hypertension was observed in 2.3 % of the children. Increased blood pressure was associated with a higher body weight, body mass index, body mass index standard deviation score and waist and hip measurements (each $p < 0.001$) but not with waist to hip ratio. Hypertension at rest ($p < 0.001$) was shown by 11.0 % of obese children, 4.4 % of overweight children, 1.2 % of normal weight children and 1.0 % of underweight children.

After intervention the increase in the body mass index tended to be lower in the intervention group ($p = 0.069$) and the decrease in the body mass index standard deviation score was significantly higher ($p = 0.028$). Systolic blood pressure was reduced by about 10 mmHg in the intervention group ($p = 0.002$) while there were no changes in the control group; diastolic blood pressure was lowered by 3 mmHg, an insignificant amount.

CHILT III

CHILT III was an interdisciplinary outpatient family-based program for obese children aged 8 and above. The children had two appointments a week. The first involved a medical consultation for the purpose of measuring their anthropometric data regularly and discussing the results with the children alone or together with their parents. The second appointment was

dedicated to either unit nutrition or psychology (behaviour modification).

The children attended sports lessons (lasting 60 or 90 minutes) twice per week. The main emphasis was placed on coordination, resistance training and strength. During this time the parents were given alternating lessons in nutrition and psychology.

Methods: During the pre- and post-examinations the anthropometric data were assessed and the body mass index (BMI) and BMI Standard Deviation Score (BMI SDS) were calculated. The watt performance and maximum oxygen uptake was registered via spiroergometry. The anthropometric data of the intervention children ($n = 23$, 10 girls, 13 boys; age: 12.0 ± 2.2 ; height: 1.58 ± 0.1 m; weight: 73.2 ± 16.7 kg; BMI: 29.2 ± 3.9 kg/m²; BMI SDS: 2.4 ± 0.4) did not differ from those of the control children ($n = 10$; 7 girls, 3 boys).

Results: Following the intervention (approx. 11 months) the age- and gender-corrected BMI SDS decreased by 0.19 ± 0.27 in the intervention group and increased by 0.05 ± 0.13 in the control group (group differences: $p = 0.023$). Absolute and relative physical performance in watt and VO₂max increased significantly ($p = < 0.05$ each).

Conclusions

Preventive intervention in primary schools offers a potentially effective means of improving coordinative skills in childhood. Schools can therefore play a key role in encouraging a healthy lifestyle among children in order to counteract the "obesity" development.

In the CHILT I program, no effect on the incidence of overweight and obesity was found in the intervention group after nearly four years of school-based intervention. There was a slight trend indicating that more overweight and obese children reach normal weight in the in-

tervention schools. We therefore assume that a greater degree of parental integration could have an influence on the anthropometric data. Moreover, special school- and family-based programs for overweight and obese children along the lines of our CHILT II/STEP TWO program are necessary.

More intensive programs at primary schools (CHILT II) and special facilities (CHILT III) established for overweight or obese children can achieve weight stabilisation or – if necessary – weight reduction. Specific encouragement and a special program are necessary for this target group, for both the children and their parents.

Unless every member of the family makes lifestyle changes, it is extremely difficult to achieve satisfactory long-term results for overweight and, especially, obese children. Possible mechanisms in this relationship include the parents' function as role models who share nutritional habits and organize activities for family members, thus offering their children guidance and support.

In summary, the effect of preventive measures in different settings was demonstrated by the various components of the CHILT program. School-based programs can improve motor skills. To combat overweight and obesity, however, more intensive programs addressing the children's total environment should be implemented.

Eating Disorders

Dr Michael Huber
University of Mainz

95% of all patients suffering from anorexia and bulimia are women; the incidence of eating disorders in men is rare. Anorexia has a prevalence of 1-2% in adolescent girls while that of bulimia is 2-4% in 20- to 35-year-old women. Bulimia starts later in life and occurs twice as often as anorexia. Michael Huber, MD, discusses symptoms, diagnosis, treatment and prognosis of eating disorders.

Anorexia

Terminology

The literal translation of anorexia = "loss of appetite" is rather misleading as anorexia is a serious eating disorder.

Symptoms

Anorexia is characterised by self-induced weight loss. According to ICD-10 criteria the actual weight is maintained at least 15% below expected body weight (BMI <17.5). Self-induced weight loss is caused by avoiding high calorie intake and may involve self-induced vomiting, excessive exercise (fitness centre!) and/or the use of laxatives and appetite suppressants. Anorexia affects mostly adolescent girls and young women.

The underlying psychopathology leads to an extreme and almost incorrigible fear of gaining weight and being too thick (disturbance in perception of body weight and shape), and anorectic patients pursue an extremely low ideal weight.

Patients usually present with marked undernourishment, and secondary complications include endocrine (amenorrhea, raised cortisole level, thyroid dysfunction) or metabolic changes. Frequent symptoms are chronic obstipation, reduced overall metabolism (body temperature), skin rhagades, brittle hair and impaired electrolyte balance (hypokalaemia). Sometimes a kind of triumphant look in the eyes indicates an important aspect of the psychodynamics of anorexia: having overcome all human needs and dependences, being modest in one's demands.

Diagnosis

DSM-IV diagnostic criteria:

- A.** Refusal to maintain body weight at or above a minimally normal

weight for age and height (e. g., weight loss leading to maintenance of body weight less than 85 % of that expected or failure to make expected weight gain during period of growth, leading to body weight less than 85 % of that expected).

- B.** Intense fear of gaining weight or becoming fat, even though underweight.
- C.** Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.
- D.** In postmenarcheal females, amenorrhea i.e. the absence of at least three consecutive cycles (a woman is considered to have amenorrhea if her periods occur only following hormone, e. g., estrogen administration).

Specify Type

Restricting Type:

During the current episode of anorexia nervosa, the person has not regularly engaged in binge-eating or purging behaviour (i. e. self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Binge-Eating/Purging Type:

During the current episode of anorexia nervosa, the person has regularly engaged in binge-eating or purging behaviour (i. e. self-induced vomiting or the misuse of laxatives, diuretics, or enemas).

Genesis

There are a number of psychodynamic concepts regarding the genesis of the disease based on suppressed independence, characteristic role models in the parent family (closely enmeshed family, lack of

autonomy), difficulties with development into autonomous womanhood and a "fight against the internal mother".

Treatment and prognosis

The prognosis of anorexia has been evaluated in a number of studies. Even 4 to 22 years after treatment of anorexia 50% of patients are still suffering from nervous symptoms (Tolstrup, 1985) and half of them are still suffering from anorexia. Other studies show that 20 years after initial manifestation of the disease 50% of patients are free of symptoms, approximately 16% are still anorexic and almost 16% have died of complications. These figures confirm a considerable mortality found in this disease.

Severe self-induced vomiting, waiting a long time before starting psychotherapy, an unstable doctor-patient relationship and persisting amenorrhea at the end of the therapy are considered unfavourable prognostic signs (Becker, 1981). The severity of the disease at onset is also of prognostic significance. Severe loss of weight at disease onset and extended in-patient treatments also indicate an unfavourable outcome (Steinhausen, 1983). A BMI of 13 kg/m² or less indicates a life-threatening condition which must in most cases lead to short term admission to a general hospital followed by intensive psychotherapeutic care (Herebrand, 1997).

As in many mental disorders there is evidence suggesting that a low level of education or poor social background represent bad prognosis (Rosenvinge, 1990). Cognitive deficits also are indicative of poor prognosis (Hamsher, 1981), they often present together with other co-morbidity, e. g. depression (North, 1999) or cerebral damage due to persisting catabolic metabolism.

A combination of psychoanalytic therapy and behavioural therapy has proven successful in anorexia

and bulimia (Kernbicherl, 1983). Mere behavioural therapy treatment was found to be not effective while cognitive-behavioural and/or analytical therapy have proven very successful.

Anorexia nervosa

Classification	Life	TPD/WP	DD
No psychological problems, weight returned to near normal (weight max. 10% under normal weight)			
History – therapy completed, no symptoms for			
≤ 1 year	150	P	P
> 1 – 3 years	150	P	P
> 3 – 5 years	100	P	P
> 5 years	75	CMO	CMO
Present – therapy not completed	150	D	D
Other present psychological problems and/or weight not returned to near normal (weight max. 10% under normal weight)	CMO	D	D

Bulimia

Bulimia and anorexia are the most typical and well-known eating disorders.

Symptoms

Bulimia, "anorexia's secret sister", is characterised by repeated attacks of binge eating and excessive preoccupation with the control of body weight. There is an extreme fear of gaining weight, but there is no desire to be extremely thin as in anorexia. Patients suffering from bulimia often have normal weight. There is a pathological pattern of eating binges and vomiting or use of laxatives.

Many symptoms are similar to those of anorexia and there is often a history of a previous episode of anorexia. Other symptoms can include:

- Secondary amenorrhea
- Teeth demineralisation (vomiting!)
- Swollen parotids
- Knuckle calluses

Underwriting Anorexia

Overall we may have deeper insight into prognostic indicators now, but for the time being underwriting decisions for anorexia will still remain unfavourable in most cases.

Psychodynamics are different from those of anorexia and comprise problems with sexual perception, loss of control, anger, and frustrated attempts to be independent. There is often an experience of separation or loss immediately prior to the onset of symptoms.

Diagnosis

DSM-IV diagnostic criteria:

- A.** Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
- (1) Eating, in a discrete period of time (e. g., within any 2-hour period), an amount of food that is definitely larger than most people would eat during a similar period of time and under similar circumstances.
 - (2) A sense of lack of control over eating during the episode (e. g., a feeling that one cannot stop eating or control what or how much one is eating).

- B. Recurrent inappropriate compensatory behaviours in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, enemas, or other medications; fasting; or excessive exercise.
- C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least twice a week for 3 months.
- D. Self-evaluation is unduly influenced by body shape and weight.
- E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

Specify Type

Purging Type:

During the current episode of bulimia nervosa, the person has regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas.

Non-Purging Type:

During the current episode of bulimia nervosa, the person has used inappropriate compensatory behaviours, such as fasting or excessive exercise, but has not regularly engaged in self-induced vomiting or the misuse of laxatives, diuretics, or enemas.

Treatment and Prognosis

There are a number of studies on the prognosis of bulimia. Prognosis is worse in cases with co-morbidity of other eating disorders and Axis I or Axis II diagnosis following DSM-IV (Brotman, 1988). Especially severe personality disorders (narcissistic, borderline) are characteristic for a subgroup of female bulimia patients with an unfavourable course of disease (Carroll, 1996). Prognosis is unfavourable where bulimia symptoms are complicated by anorexic phases or alcohol misuse (Lacey, 1983).

One of the best prognostic factors in bulimia appears to be early intensive psychotherapy (Reas, 2000). Analytical or cognitive-behavioural therapy is far more successful than classical behavioural therapy (Fairburn, 1995). Overall prognosis for bulimia is much more favourable than for anorexia and mortality is lower.

An applicant who suffered from bulimia a decade ago, underwent analytical or cognitive-behavioural therapy and has had no further symptoms at the time of application will

be underwritten more favourably in the future, but this changed assessment has not found its way into daily underwriting practice just yet.

Underwriting Bulimia

The boundaries between bulimia and anorexia may be indistinct. True bulimia is rare. In view of persisting uncertainties about the long-term course of bulimia Gen Re suggest the following cautious underwriting approach:

Bulimia

Classification	Life	TPD/WP	DD
No psychological problems, weight returned to near normal (weight max. 10 % under normal weight)			
History – therapy completed, no symptoms for			
≤ 1 year	150	P	P
> 1 – 3 years	150	P	P
> 3 – 5 years	100	P	P
> 5 years	75	CMO	CMO
Present – therapy not completed	150	D	D
Other present psychological problems and/or weight not returned to near normal (weight max. 10 % under normal weight)	CMO	D	D

Adiposity, Hyperlipidemia and Eating Disorders in Daily Practice

We collected four case studies for you to get an impression of day-to-day underwriting decisions regarding adiposity, hyperlipidemia and eating disorders. Marlis Ostermann-Myrau, Chief Medical Officer Gen Re Life-Health, summarises the cases and comments on the medical insurance assessment.

The following cases are purely fictional and were compiled for illustration purposes only. The contents are, however, based on the facts of actual cases taken from our global portfolios.

The data provided bear no relation to actual persons, living or deceased.

Case Study 1

Application Details

Plan	Life, PHI, WOP
Sum Assured	€ 100,000
Occupation	Nurse
Previous applications	Nil
Hazardous pursuits	Nil
Application dated	20. 9. 2005

Personal History

					Female, 22, single
Smoking habits					Non-smoker
Drinking habits					Non-drinker
Other information					172 cm, 55 kg, BP 100/60
Application dated					23. 8. 2005
Family History	Age	Age at death	Cause of death	Medical History	
Father	60	–	–	Alive and well	
Mother	–	58	DM type II, myocardial infarction	–	

Medical information from clinical report

At the age of 12 she had a severe depression (death of the mother), got obese from age 13 to 16.

Going on several diets, no effort. Maximal weight 104 kg, several depressive episodes. First sexual contact at age 16, stress with her father, quits her family and lives with her boyfriend.

At this time she eats extremely poor, drinks only mineral water, starts with excessive sportive activities, further

depressive episodes nearly 2x/y. Hence decrease of weight to 49 kg within the next 3 years. At age 19 another severe crisis in the partnership, loss of weight to 44 kg. Hospital treatment for 6 months.

MAR

Permanent outpatient psychotherapy until 2/05. Now in good health, no problems, no other partnership, single, 55 kg, stable, only sometimes dizziness because of reduced BP, sometimes gastritis, colitis, and functional disturbances.

Lab test results

Potassium 3.1 mmol/l, Triglyceride 1.0 mmol/l, S-Protein 54 g/l, and anaemia: Hb 11.2 g/l, else normal.

ECG and ultrasound: no abnormalities.

Stress ECG: stage II Bruce protocol, max. HR 178, max. BP 175/80, after 8 minutes back to normal HR and BP.

Gyn: secondary amenorrhoea, now on hormonal treatment.

Medical insurance comment

Recurrent depressive episodes, treatment required until 02/95, still underweight, eating disorder likely according to lab test results (reduced potassium, anaemia and lack of protein), hypotension, reduced capacity during stress test.

Life: moderate risk (ca. + 150%)

PHI / WOP: Depressive episodes, still underweight, recurrent crisis, last psychotherapy only a few months ago. Another crisis may be likely in future. Eating disorders. Severe risk, postpone for at least 5 years.

Case Study 2

Application Details

Plan	Life, CI
Sum Assured	€ 120,000
Occupation	Secretary
Previous applications	Nil
Hazardous pursuits	Nil
Application dated	9.9.2005

Personal History

					Female, 29, married
Smoking habits					10 cigarettes/day
Drinking habits					Non-drinker
Other information					168 cm, 97 kg
Family History	Age	Age at death	Cause of death	Medical History	
Father	74	-	-	Alive and well	
Mother	70	-	-	BMI 36, hypertension, DM, severe osteoporosis with several bone fractures	

Medical history

Back and knee trouble since age 16.
BP 152/90

Oesophageal reflux, Hernia diaphragmatic, takes Omeprazol 20 (2x1/d).

Medical report

Hernia diaphragmatic, Oesophagitis II°, no Barrett dysplasia.

Lipids: Cholesterol 6.7 mmol/l, Triglyceride 3.6 mmol/l, blood sugar 6.8 mmol/l, slightly elevated liver function tests: Alat 101 U/l (-35), Asat 75 U/l (-35).

G-gt 69 U/l (-59), CHE and AP normal.

Ultrasound: Steatosis hepatis II°, cholecystolithiasis, no symptoms.

Recent ECG ok, cardiac examination in 2002 normal.

Medical insurance comment

Risk factors suggest a metabolic syndrome (overweight, hypertension, abnormal lipids, impaired fasting glucose [IFG]), elevated liver function tests, steatosis hepatis. Young woman with risk to develop Diabetes mellitus Type II. High risk for vascular diseases.

Life: min. + 175 %

CI: decline

Case Study 3

Application Details

Plan	Life, PHI, CI
Sum Assured	€ 200,000
Occupation	Banker
Previous applications	Nil
Hazardous pursuits	Nil
Application dated	17.8.2005

Personal History

					Male, 33, married
Smoking habits					15 cigarettes/day
Drinking habits					8 units/week
Other information					176 cm, 65 kg
Family History	Age	Age at death	Cause of death	Medical History	
Father	65	-	-	Myocardial infarction at age 56	
Mother	64	-	-	Alive and well	
Brother	38	-	-	Myocardial infarction at age 36	

Medical information

Feels fit and healthy. Sportive person.

Medical report

BP 124/77

Lab results: all within normal limits except in 2002 Cholesterol 6.4 (-5.2), L-Cholesterol 4.9 mmol/l (-4.1), then starting treatment with statine, now Cholesterol and LDL within normal range.

ECG and stress ECG: stage IV Bruce protocol, no ischaemic heart disease, HR and BP within normal range.

Medical insurance comment

Positive family history, normal weight, normal BP. Risk factors suggest familiar hyperlipidemia. Smoker. Hyperlipidemia now well controlled.

Life: Moderate to high risk for vascular diseases. Occupation favourable. Min. + 100 %

PHI: Min. + 150 %

CI: decline

Case Study 4

Application Details

Plan	Life, PHI, WOP, CI
Sum Assured	€ 90,000
Occupation	Student
Previous applications	Nil
Hazardous pursuits	Nil
Application dated	7. 9. 2005

Personal History

	Female, 18, single			
Smoking habits	Non-smoker			
Drinking habits	Non-drinker			
Other information	172 cm, 95 kg, BP 100/60			
Family History	Age	Age at death	Cause of death	Medical History
Father	59	–	–	Alive and well
Mother	–	58	Hyperlipidemia and myocardial infarction	–

Medical insurance comment

- Life

Recurrent depressive episodes, treatment required, still overweight, eating disorder likely by lab-tests, only a short period of therapy. Reduced capacity during stress test. Hypertension untreated.

Moderate risk (ca. + 150 %)

- PHI / WoP

Depressive episodes, still overweight, psychotherapy only for a few months. Another crisis may be likely in future. Eating disorders. Hypertension untreated.

Severe risk, postpone for 5 years.

- Critical Illness

Hypertension, untreated; Adiposity, Depression, possibly suicidal.

Postpone for 5 years.

Medical information

Lab tests:

Potassium 3.1 mmol/l, Triglyceride 3.0 mmol/l, S-Protein 74 g/l, rest normal.

ECG and ultrasound: no abnormalities. TSH: within normal limits.

Stress ECG: Bruce step 2, max. HR 178, maximal BP 195/80, after 8 minutes back to normal HR and BP.

Gyn: secondary amenorrhoea, hormonal treatment given.

Medical reports

Clinical Report:

Hypertension for 3 years. Low back pain. Asthma in childhood.

At age 13 she had a mild depression. She got more and more obese. Max. weight 108 kg. Started several diets, lost weight over 2 years while taking diuretics and laxatives. Minimal weight 49 kg. Several depressive episodes, stress with her family because of her eating habits, quit her family to live with her boyfriend.

At age 16 she ate extremely much 2-3 times/week, later on artificial vomiting. Further depressive episodes, stopped her studies. After a severe crisis 1/2 a year ago she started with a psychotherapy.

MAR:

Permanent outpatient psychotherapy. Now in good health, no problems, stable, only 1 relapse 3 months ago. Started with her studies again. BP 154/103, HR 98/min.

A Look Across the Fence: Underwriting in the UK

This time we take a look at underwriting in the UK. Lynn Baillie, Senior Underwriter at Gen Re UK, talks to Martin Gwilliam, Chief Underwriter at St James's Place.

*Lynn Baillie
Senior Underwriter
Gen Re UK, London*

*Martin Gwilliam
Chief Underwriter
St James's Place,
Cirencester*

What is the role of the Chief Underwriter in a typical UK Life office?

As a Chief Underwriter I am responsible for setting the philosophy and agreeing procedures that ensure my underwriters deliver good customer service and achieve financial results that are in-line with our underlying pricing.

My company writes both life protection and long-term health insurance. My role also includes the claims aspects of our business. There are many issues that influence the implementation and maintenance of a successful underwriting and claims strategy, so the Chief Underwriter job is a tremendous challenge; even a daunting one from time to time.

To be effective, I need to be aware of a wide range of technical, medical and product related details but also legislative restraints, aspects of accountancy, world affairs, extreme sports and unusual occupations; often all in the same case!

Leading our underwriting forward and contributing to key areas of the business including sales, marketing, pricing and legal and compliance is also part of my remit.

If I have time, I still enjoy some "hands-on" underwriting, using my experience to provide guidance and ensuring we get the best decisions possible on our large risks and the medically complex cases.

I have management and training responsibility and work closely with our Reinsurers, the sales intermediaries, medical professionals, legal experts and regulatory bodies.

It is a very varied role and one where you should always expect the unexpected; regardless of the number of years spent in underwriting,

there is always something new around the corner!

What are the major challenges for underwriters in this market?

The biggest challenge is to make sound underwriting decisions while ensuring we operate with a sense of commercial reality and add value to the business.

There is pressure on underwriters to deliver decisions in a short time-frame. It is also very important that we make profitable decisions. We need to become experts in assessing risk quickly and must act with prudence and care.

There is some mystique associated with underwriting especially by the buying public and even sales people. We need to be able to explain the rationale behind our underwriting decisions as this helps our clients to accept our decisions.

Challenges lie ahead in the UK market. Evolving design in critical illness products, increased use of tele-underwriting techniques and medical advances in diagnostics and genetics.

This constantly changing environment means the underwriters needs to be well informed, prepared to contribute ideas and be ready to accept change.

Do you think the underwriters understand the relationship between profit and actually doing their day-to-day job?

I sincerely hope so! Undeniably the underwriter's main focus is the day-to-day activity of assessing individual risk. There is a danger that they work in some kind of vacuum with little connection to the wider business picture. Successful companies ensure their underwriters understand and appreciate the impact of their ac-

tions in a wider business context. Good examples would be, understanding the impact of their requests for additional evidence or of waiving loadings for unsound reasons.

How is the subject of genetics handled in the UK?

Assessment of genetic information is very strictly controlled in the UK. Unlike other markets where legislation determines how insurers operate, the UK insurers conduct their business within an agreed code of practice from the Association of British Insurers (ABI). This code gives ground rules on when genetic test results may be obtained and who may use them.

Every ABI member company produces an annual return that confirms their compliance with the code. This allows the industry to self-regulate and to demonstrate to Government and other bodies that the insurance industry takes its responsibilities very seriously in this matter.

Do you foresee any developments to the type of medical evidence used in risk assessment?

The UK market has a traditional approach to medical evidence. Put simply, additional evidence is driven by either application form disclosure or age and insured amount. The first port of call is the General Practitioner's Report (GPR).

We use the GPR because the UK health service centralises patient medical records with just one doctor. Pressure to reduce the reliance on the GPR results from the sheer cost (each report is € 112), and the long delays experienced in waiting for the completed forms from busy doctors.

The GPR has served us well in the past and will continue to be used in the immediate future. However, I predict that insurers will look for smarter and more cost-effective ways of collecting relevant underwriting data.

For example, our application forms have become longer and more de-

tailed, designed to get maximum information from the applicant. However, we ask the same questions to all applicants, regardless of age and it may make sense to tailor our questions to suit the risk profile of each applicant. I feel we could emphasise lifestyle more, seeking information on positive changes to habits, build and exercise.

I think there will be greater use of laboratory testing. Collecting fluid samples will become more convenient, non-invasive and less expensive.

Ultimately, this development should result in more meaningful and evidence-based data giving the potential for better control over risk management but there will inevitably be a transitional period during which the underwriting "rules" will need to be rewritten.

Will the development of tele-underwriting techniques change how underwriting is handled, and if so in what ways?

Definitely. This is a new development for us although some UK companies have conducted pilot tests and a few have full implementation into their new business process. General opinion says that tele-underwriting in some form will become an established feature of risk assessment in the life and health protection market. Potentially, there may be big savings to be had from reduced evidence costs if we can get the interview process right.

Of course the skills and experience of the telephone call handler, the recording and "playback" of the telephone interview and the robustness and flexibility of the expert underwriting system rules will all play a part in the success of this approach.

And one for the not-too-distant future – the ability (and bravery!) of the underwriter to assess risk purely on the strength of a telephone interview without supporting medical information from the traditional third party sources such as the GPR or medical examination.

Is there a market for large sums assured in the UK?

Yes, there are several companies competing for the high-value business. We offer cover for personal reasons such as family protection, tax planning and so on. We also provide share purchase, keyman and other business orientated covers. Sums assured in some cases can run to millions of euros.

In my view, success in this market segment is built on a specific strategy that targets, and services high net worth clients with top quality products and service. One key aspect for the Chief Underwriter is to ensure the underwriting process delivers adequate risk assessment in line with our business goals. This requires sound financial underwriting.

In many respects, financial underwriting information has remained unchanged for decades. The "shopping list" of requirements remains centred on financial questionnaires, loan agreements, business trading figures, earnings and calculation of tax liabilities.

It always amazes me that given the availability of this information to support the risk there is often considerable friction and delay in completing the acceptance of large risks.

In my experience, to succeed here, the underwriter must play a pivotal role in bringing together the data and background information from the salesperson and liaising with the Reinsurer to ensure these cases are placed successfully.

Moving forward there may be scope to derive more targeted evidence requirements here without diluting the risk assessment but get closer to understanding the wider background of the client's and salesperson's requirements.

Salespeople operating in the high-value market tend to be well informed about their clients needs having developed a relationship over a number of years. The sale of

protection cover may be just one element of a much wider portfolio of business. I feel a good recipe for success is to ensure the underwriter and Reinsurer get access to this background and thereby move away from underwriting the protection risk in isolation.

Critical Illness is sold in your market. What are the main challenges that you face in underwriting this benefit?

The UK market has been writing Critical Illness cover for almost 20 years. It has proved a success story in our protection market to a point. Advances in medical diagnosis has

raised concerns with the underlying definitions, and claims experience has pushed the premiums up causing a slight tail-off in sales.

Against this background, the Chief Underwriter has a very important role to play to contribute to the profitability of this business. I need to ensure my underwriters understand the development of the next generation of definitions, recognise that underwriting acceptances made in the past may no longer be relevant in the current environment and to "hold the line" where a rating or restriction on benefit is challenged.

Seminar Dates 2006

Gen Re Medical Underwriting Programme

THE CHARTERED
INSURANCE INSTITUTE



Course 2005/2006

Module 3: 6 to 10 February 2006

Module 4: 19 to 23 June 2006

Course 2006/2007

Module 1: 26 to 31 March 2006

Module 2: 28 August to 1 September 2006

Please register for module 1 of the Gen Re Medical Underwriting Programme 2006/2007 by 28 February 2006. For registration forms and further details please contact Simone Ledermann (+49 221 9738 156, ledermann@genre.com) or Markus Burbach (+49 221 9738 796, burbach@genre.com).



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2005

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Underwriting Focus is a publication of the
Gen Re Business School.

Production

Druckhaus Locher GmbH, Cologne

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