Life Insurance Association Singapore
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LIA CRITICAL ILLNESS (CI) FRAMEWORK 2024
STANDARD DEFINITIONS FOR SEVERE STAGE OF 37 CRITICAL ILLNESSES: VERSION 2024

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1 Major Cancer

A malignant tumour positively diagnosed with histological confirmation and characterised by the uncontrolled growth of malignant cells with invasion and destruction of normal tissue.

The term Major Cancer includes, but is not limited to, leukaemia, lymphoma and sarcoma.

Major Cancer diagnosed on the basis of finding tumour cells and/or tumour-associated molecules in blood, saliva, faeces, urine or any other bodily fluid in the absence of further definitive and clinically verifiable evidence does not meet the above definition.

For the above definition, the following are excluded:

- All tumours which are histologically classified as any of the following:
  Pre-malignant;
  Non-invasive;
  Carcinoma-in-situ (Tis) or Ta;
  Having borderline malignancy;
  Having any degree of malignant potential;
  Having suspicious malignancy;
  Neoplasm of uncertain or unknown behaviour; or
  All grades of dysplasia, squamous intraepithelial lesions (HSIL and LSIL) and intra epithelial neoplasia;
- Any non-melanoma skin carcinoma, skin confined primary cutaneous lymphoma and dermatofibrosarcoma protuberans unless there is evidence of metastases to lymph nodes or beyond;
- Malignant melanoma that has not caused invasion beyond the epidermis;
- All Prostate cancers histologically described as T1N0M0 (TNM Classification) or below; or Prostate cancers of another equivalent or lesser classification;
- All Thyroid cancers histologically classified as T1N0M0 (TNM Classification) or below;
- All Neuroendocrine tumours histologically classified as T1N0M0 (TNM Classification) or below; and all pituitary neuroendocrine tumours (PitNET) except Metastatic PitNET and Pituitary Carcinoma;
- All tumours of the Urinary Bladder histologically classified as T1N0M0 (TNM Classification) or below;
- All Gastro-Intestinal Stromal tumours histologically classified as Stage I or IA according to the latest edition of the AJCC Cancer Staging Manual, or below;
- Chronic Lymphocytic Leukaemia less than RAI Stage 3;
- All bone marrow malignancies which do not require recurrent blood transfusions, chemotherapy, targeted cancer therapies, bone marrow transplant, haematopoietic stem cell transplant or other major interventionist treatment; and
- All tumours in the presence of HIV infection.

2 Heart Attack of Specified Severity

Death of heart muscle due to ischaemia, that is evident by at least three of the following criteria proving the occurrence of a new heart attack:

- History of typical chest pain;

- New characteristic electrocardiographic changes; with the development of any of the following: ST elevation or depression, T wave inversion, pathological Q waves or left bundle branch block;
- Elevation of the cardiac biomarkers, inclusive of CKMB above the generally accepted normal laboratory levels or Cardiac Troponin T or I at 0.5ng/ml and above;
- Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality. The imaging must be done by Cardiologist specified by the Company.

For the above definition, the following are excluded:

- Angina;
- Heart attack of indeterminate age; and
- A rise in cardiac biomarkers or Troponin T or I following an intra-arterial cardiac procedure including, but not limited to, coronary angiography and coronary angioplasty.

Explanatory note: 0.5ng/ml = 0.5ug/L = 500pg/ml

3 Stroke with Permanent Neurological Deficit

A cerebrovascular incident including infarction of brain tissue, cerebral and subarachnoid haemorrhage, intracerebral embolism and cerebral thrombosis resulting in permanent neurological deficit. This diagnosis must be supported by all of the following conditions:

- Evidence of permanent clinical neurological deficit confirmed by a neurologist at least 6 weeks after the event; and
- Findings on Magnetic Resonance Imaging, Computerised Tomography, or other reliable imaging techniques consistent with the diagnosis of a new stroke.

The following are excluded:

- Transient Ischaemic Attacks;
- Brain damage due to an accident or injury, infection, vasculitis, and inflammatory disease;
- Vascular disease affecting the eye or optic nerve;
- Ischaemic disorders of the vestibular system; and
- Secondary haemorrhage within a pre-existing cerebral lesion.

4 Coronary Artery By-pass Surgery

The actual undergoing of open-chest surgery or Minimally Invasive Direct Coronary Artery Bypass surgery to correct the narrowing or blockage of one or more coronary arteries with bypass grafts. This diagnosis must be supported by angiographic evidence of significant coronary artery obstruction and the procedure must be considered medically necessary by a consultant cardiologist.

Angioplasty and all other intra-arterial, catheter-based techniques, 'keyhole' or laser procedures are excluded.

5 End Stage Kidney Failure

Chronic irreversible failure of both kidneys requiring either permanent renal dialysis or kidney transplantation.

6 Irreversible Aplastic Anaemia

Chronic persistent and irreversible bone marrow failure, confirmed by biopsy, which results in anaemia, neutropenia and thrombocytopenia requiring treatment with at least one of the following:

- Blood product transfusion;
- Bone marrow stimulating agents;
- Immunosuppressive agents; or
- Bone marrow or haematopoietic stem cell transplantation.

The diagnosis must be confirmed by a haematologist.

7 End Stage Lung Disease

End stage lung disease, causing chronic respiratory failure. This diagnosis must be supported by evidence of all of the following:

- FEV_1 test results which are consistently less than 1 litre;
- Permanent supplementary oxygen therapy for hypoxemia;
- Arterial blood gas analyses with partial oxygen pressures of 55mmHg or less ($PaO_2 \leq 55mmHg$); and
- Dyspnea at rest.

The diagnosis must be confirmed by a respiratory physician.

8 End Stage Liver Disease

End stage liver failure as evidenced by all of the following:

- Permanent jaundice;
- Ascites; and
- Hepatic encephalopathy.

Liver disease secondary to alcohol or drug abuse is excluded.

9 Coma

A coma that persists for at least 96 hours. This diagnosis must be supported by evidence of all of the following:

- No response to external stimuli for at least 96 hours;

- Life support measures are necessary to sustain life; and
- Brain damage resulting in permanent neurological deficit which must be assessed at least 30 days after the onset of the coma.

For the above definition, medically induced coma and coma resulting directly from alcohol or drug abuse or self-inflicted injuries are excluded.

10 Deafness (Irreversible Loss of Hearing)

Total and irreversible loss of hearing in both ears as a result of illness or accident. This diagnosis must be supported by audiometric and sound-threshold tests provided and certified by an Ear, Nose, and Throat (ENT) specialist.

Total means "the loss of hearing to the extent that the quietest sound that can be heard is 80 decibels or greater across all frequencies".

Irreversible means "cannot be reasonably restored to 40 decibels or lower by medical treatment, hearing aid and/or surgical procedures consistent with the current standard of the medical services available in Singapore after a period of 6 months from the date of intervention".

11 Open-Heart Heart Valve Surgery

The actual undergoing of open-heart surgery to replace or repair heart valve abnormalities. The diagnosis of heart valve abnormality must be supported by cardiac catheterisation or echocardiogram and the procedure must be considered medically necessary by a consultant cardiologist.

The open-heart surgery refers to an incision on the heart for the direct visual replacement or repair of the heart valve abnormalities.

For the above definition, the following operation or procedures are excluded:

- The operation or procedure performed via endoscopic or keyhole surgery
- The operation or procedure performed via catheterisation

12 Irreversible Loss of Speech

Total and irreversible loss of the ability to speak as a result of injury or disease to the vocal cords. The inability to speak must be established for a continuous period of 12 months. This diagnosis must be supported by medical evidence furnished by an Ear, Nose, Throat (ENT) specialist.

All psychiatric related causes are excluded.

13 Major Burns

Third degree (full thickness of the skin) burns covering at least 20% of the surface of the Life Assured's body.

14 Major Organ/Bone Marrow Transplantation

The receipt of a transplant of:

- Human bone marrow using haematopoietic stem cells preceded by total bone marrow ablation; or
- One of the following human organs: heart, lung, liver, kidney, pancreas that resulted from irreversible end stage failure of the relevant organ.

Other stem cell transplants are excluded.

15 Multiple Sclerosis

The definite diagnosis of Multiple Sclerosis, and must be supported by all of the following:

- Investigations which unequivocally confirm the diagnosis to be Multiple Sclerosis; and
- Multiple neurological deficits which occurred over a continuous period of at least 6 months.

Other causes of neurological damage such as SLE and HIV are excluded.

16 Muscular Dystrophy

The unequivocal diagnosis of muscular dystrophy must be made by a consultant neurologist. The condition must result in the inability of the Life Assured to perform (whether aided or unaided) at least 3 of the 6 "Activities of Daily Living" for a continuous period of at least 6 months.

For the purpose of this definition, "aided" shall mean with the aid of special equipment, device and/or apparatus and not pertaining to human aid.

17 Idiopathic Parkinson's Disease

The unequivocal diagnosis of idiopathic Parkinson's Disease by a consultant neurologist. This diagnosis must be supported by all of the following conditions:

- The disease cannot be controlled with medication; and
- Inability of the Life Assured to perform (whether aided or unaided) at least 3 of the 6 "Activities of Daily Living" for a continuous period of at least 6 months.

For the purpose of this definition, "aided" shall mean with the aid of special equipment, device and/or apparatus and not pertaining to human aid.

18 Surgery to Aorta

The actual undergoing of major surgery to repair or correct an aneurysm, narrowing, obstruction or dissection of the aorta through surgical opening of the chest or abdomen. For the purpose of this definition, aorta shall mean the thoracic and abdominal aorta but not its branches.

Surgery performed using only minimally invasive or intra-arterial techniques is excluded.

19 Alzheimer's Disease / Severe Dementia

Deterioration or loss of cognitive function as confirmed by clinical evaluation and imaging tests, arising from Alzheimer's disease or irreversible organic disorders, resulting in significant reduction in mental and social functioning requiring the continuous supervision of the life assured. This diagnosis must be supported by the clinical confirmation of an appropriate consultant and supported by the Company's appointed doctor.

The following are excluded:

- Non-organic diseases such as neurosis and psychiatric illnesses; and
- Alcohol related brain damage.

20 Fulminant Hepatitis

A submassive to massive necrosis of the liver by the Hepatitis virus, leading precipitously to liver failure. This diagnosis must be supported by all of the following:

- Rapid decreasing of liver size as confirmed by abdominal ultrasound;
- Necrosis involving entire lobules, leaving only a collapsed reticular framework;
- Rapid deterioration of liver function tests;
- Deepening jaundice; and
- Hepatic encephalopathy

21 Motor Neurone Disease

Motor neurone disease characterised by progressive degeneration of corticospinal tracts and anterior horn cells or bulbar efferent neurones which include spinal muscular atrophy, progressive bulbar palsy, amyotrophic lateral sclerosis and primary lateral sclerosis. This diagnosis must be confirmed by a neurologist as progressive and resulting in permanent neurological deficit.

22 Primary Pulmonary Hypertension

Primary Pulmonary Hypertension with substantial right ventricular enlargement confirmed by investigations including cardiac catheterisation, resulting in permanent physical impairment of at least Class IV of the New York Heart Association (NYHA) Classification of Cardiac Impairment.

The NYHA Classification of Cardiac Impairment:

Class I: No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, dyspnea, or anginal pain.
Class II: Slight limitation of physical activity. Ordinary physical activity results in symptoms.
Class III: Marked limitation of physical activity. Comfortable at rest, but less than ordinary activity causes symptoms.
Class IV: Unable to engage in any physical activity without discomfort. Symptoms may be present even at rest.

23 HIV Due to Blood Transfusion and Occupationally Acquired HIV

A) Infection with the Human Immunodeficiency Virus (HIV) through a blood transfusion, provided that all of the following conditions are met:

- The blood transfusion was medically necessary or given as part of a medical treatment;
- The blood transfusion was received in Singapore after the Issue Date, Date of endorsement or Date of reinstatement of this Supplementary Contract, whichever is the later; and
- The source of the infection is established to be from the Institution that provided the blood transfusion and the Institution is able to trace the origin of the HIV tainted blood.

B) Infection with the Human Immunodeficiency Virus (HIV) which resulted from an accident occurring after the Issue Date, date of endorsement or date of reinstatement of this Supplementary Contract, whichever is the later whilst the Insured was carrying out the normal professional duties of his or her occupation in Singapore, provided that all of the following are proven to the Company's satisfaction:

- Proof that the accident involved a definite source of the HIV infected fluids;
- Proof of sero-conversion from HIV negative to HIV positive occurring during the 180 days after the documented accident. This proof must include a negative HIV antibody test conducted within 5 days of the accident; and
- HIV infection resulting from any other means including sexual activity and the use of intravenous drugs is excluded.

This benefit is only payable when the occupation of the insured is a medical practitioner, housemen, medical student, state registered nurse, medical laboratory technician, dentist (surgeon and nurse) or paramedical worker, working in medical centre or clinic (in Singapore).

This benefit will not apply under either section A or B where a cure has become available prior to the infection. "Cure" means any treatment that renders the HIV inactive or non-infectious.

24 Benign Brain Tumour

Benign brain tumour means a non-malignant tumour located in the cranial vault and limited to the brain, meninges or cranial nerves where all of the following conditions are met:

- It has undergone surgical removal or, if inoperable, has caused a permanent neurological deficit; and
- Its presence must be confirmed by a neurologist or neurosurgeon and supported by findings on Magnetic Resonance Imaging, Computerised Tomography, or other reliable imaging techniques.

The following are excluded:

- Cysts;
- Abscess;
- Angioma;
- Granulomas;
- Vascular Malformations;
- Haematomas; and
- Tumours of the pituitary gland, spinal cord and skull base.

25 Severe Encephalitis

Severe inflammation of brain substance (cerebral hemisphere, brainstem or cerebellum) and resulting in permanent neurological deficit which must be documented for at least 6 weeks. This diagnosis must be certified by a consultant neurologist and supported by any confirmatory diagnostic tests.

Encephalitis caused by HIV infection is excluded.

26 Severe Bacterial Meningitis

Bacterial infection resulting in severe inflammation of the membranes of the brain or spinal cord resulting in significant, irreversible and permanent neurological deficit. The neurological deficit must persist for at least 6 weeks. This diagnosis must be confirmed by:

- The presence of bacterial infection in cerebrospinal fluid by lumbar puncture; and
- A consultant neurologist.

Bacterial Meningitis in the presence of HIV infection is excluded.

27 Angioplasty & Other Invasive Treatment for Coronary Artery

The actual undergoing of balloon angioplasty or similar intra-arterial catheter procedure to correct a narrowing of minimum 60% stenosis, of one or more major coronary arteries as shown by angiographic evidence. The revascularisation must be considered medically necessary by a consultant cardiologist.

Coronary arteries herein refer to left main stem, left anterior descending, circumflex and right coronary artery.

Diagnostic angiography is excluded.

28 Blindness (Irreversible Loss of Sight)

Permanent and irreversible loss of sight in both eyes as a result of illness or accident to the extent that even when tested with the use of visual aids, vision is measured at 6/60 or worse in both eyes using a Snellen eye chart or equivalent test, or visual field of 20 degrees or less in both eyes. The blindness must be confirmed by an ophthalmologist.

The blindness must not be correctable by surgical procedures, implants or any other means.

29 Major Head Trauma

Accidental head injury resulting in permanent neurological deficit to be assessed no sooner than 6 weeks from the date of the accident. This diagnosis must be confirmed by a consultant neurologist and supported by relevant findings on Magnetic Resonance Imaging, Computerised Tomography, or other reliable imaging techniques. "Accident" means an event of violent, unexpected, external, involuntary and visible nature which is independent of any other cause and is the sole cause of the head injury.

The following are excluded:

- Spinal cord injury; and
- Head injury due to any other causes.

30 Paralysis (Irreversible Loss of Use of Limbs)

Total and irreversible loss of use of at least 2 entire limbs due to injury or disease persisting for a period of at least 6 weeks and with no foreseeable possibility of recovery. This condition must be confirmed by a consultant neurologist.

Self-inflicted injuries are excluded.

31 Terminal Illness

Terminal illness means "any condition caused by illness or injury, where at the time of claim, despite all reasonable medical treatment, the Life Assured is expected to live for no more than 12 months."

The specialist medical practitioner treating the condition must provide supporting evidence of the condition, possible medical treatment, the prognosis after undergoing the possible medical treatment, and certify that the Life Assured is expected to live for no more than 12 months despite all possible medical intervention. We reserve the right to appoint an independent medical specialist who is an expert in the condition to confirm the diagnosis and prognosis.

Terminal Illness in the presence of HIV infection is excluded.

32 Progressive Scleroderma

A systemic collagen-vascular disease causing progressive diffuse fibrosis in the skin, blood vessels and visceral organs. This diagnosis must be unequivocally confirmed by a consultant rheumatologist and

supported by biopsy or equivalent confirmatory test, and serological evidence, and the disorder must have reached systemic proportions to involve the heart, lungs or kidneys.

The following are excluded:

- Localised scleroderma (linear scleroderma or morphea);
- Eosinophilic fasciitis; and
- CREST syndrome.

33 Persistent Vegetative State (Apallic Syndrome)

Universal necrosis of the brain cortex with the brainstem intact. This diagnosis must be definitely confirmed by a consultant neurologist. This condition has to be medically documented for at least one month.

34 Systemic Lupus Erythematosus with Lupus Nephritis

The unequivocal diagnosis of Systemic Lupus Erythematosus (SLE) based on recognised diagnostic criteria and supported with clinical and laboratory evidence. In respect of this contract, systemic lupus erythematosus will be restricted to those forms of systemic lupus erythematosus which involve the kidneys (Class III to Class VI Lupus Nephritis, established by renal biopsy, and in accordance with the RPS/ISN classification system). The final diagnosis must be confirmed by a certified doctor specialising in Rheumatology and Immunology.

The RPS/ISN classification of lupus nephritis:

Class I	Minimal mesangial lupus nephritis
Class II	Mesangial proliferative lupus nephritis
Class III	Focal lupus nephritis (active and chronic; proliferative and sclerosing)
Class IV	Diffuse lupus nephritis (active and chronic; proliferative and sclerosing; segmental and global)
Class V	Membranous lupus nephritis
Class VI	Advanced sclerosis lupus nephritis

35 Other Serious Coronary Artery Disease

The narrowing of the lumen of at least one coronary artery by a minimum of 75% and of two others by a minimum of 60%, as proven by invasive coronary angiography, regardless of whether or not any form of coronary artery surgery has been performed.

The occurrence of the stenosis of the involved coronary arteries must be detected in a single invasive coronary angiography report performed in one sitting.

Diagnosis by Imaging or non-invasive diagnostic procedures such as CT scan or MRI does not meet the confirmatory status required by the definition.

Coronary arteries herein refer to left main stem, left anterior descending, circumflex and right coronary artery. The branches of the above coronary arteries are excluded.

36 Poliomyelitis

The occurrence of Poliomyelitis where the following conditions are met:

- Poliovirus is identified as the cause,
- Paralysis of the limb muscles or respiratory muscles must be present and persist for at least 3 months.

The diagnosis must be confirmed by a consultant neurologist or specialist in the relevant medical field.

37 Loss of Independent Existence

A condition as a result of a disease, illness or injury whereby the Life Assured is unable to perform (whether aided or unaided) at least 3 of the 6 "Activities of Daily Living", for a continuous period of 6 months.

This condition must be confirmed by the company's approved doctor.

Non-organic diseases such as neurosis and psychiatric illnesses are excluded.

For the purpose of this definition, “aided” shall mean with the aid of special equipment, device and/or apparatus and not pertaining to human aid.

Others

The following two terms can be found in some of the above definitions, and their meanings are as follows:

1 Permanent Neurological Deficit

Permanent means expected to last throughout the lifetime of the Life Assured.

Permanent neurological deficit means symptoms of dysfunction in the nervous system that are present on clinical examination and expected to last throughout the lifetime of the Life Assured. Symptoms that are covered include numbness, paralysis, localized weakness, dysarthria (difficulty with speech), aphasia (inability to speak), dysphagia (difficulty swallowing), visual impairment, difficulty in walking, lack of coordination, tremor, seizures, dementia, delirium and coma.

2 Activities of Daily Living (ADLs)

The six "Activities of Daily Living" are:

(i) Washing – the ability to wash in the bath or shower (including getting into and out of the bath or shower) or wash satisfactorily by other means;
(ii) Dressing – the ability to put on, take off, secure and unfasten all garments and, as appropriate, any braces, artificial limbs or other surgical appliances;
(iii) Transferring – the ability to move from a bed to an upright chair or wheelchair and vice versa;
(iv) Mobility – the ability to move indoors from room to room on level surfaces;
(v) Toileting – the ability to use the lavatory or otherwise manage bowel and bladder functions so as to maintain a satisfactory level of personal hygiene;
(vi) Feeding – the ability to feed oneself once food has been prepared and made available.

End