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Inflammatory Joint Disease

Arthritis is the painful inflammation of joints. The most common form is Osteoarthritis where inflammation occurs because the cartilaginous (protective soft) ends of bone have worn away. Arthritis may also reflect an autoimmune process as is seen in Rheumatoid Arthritis, SLE, Ankylosing Spondylitis, Reiters Syndrome and Psoriatic Arthritis. Arthritis may also be associated with Inflammatory Bowel Disease and gout may cause arthritis when urate crystals are deposited in joints such as the great toe and knee.

Osteoarthritis

Osteoarthritis (OA) is the commonest form of arthritis. It is related to ageing but other factors may foster its development such as injury to joints, infection in joints, obesity, and congenital disorders. The degenerative process occurs when cartilage in the joint breaks down. Cartilage is the slippery tissue that covers the ends of bone in a joint and allows the end of each bone to glide over each other. In OA as the cartilage breaks down the ends of the bones rub together causing pain. Unlike Rheumatoid Arthritis, OA only affects joints.

Any joint may be affected by OA but there are 3 major patterns:

- OA affecting the finger joints (often this is associated with bony abnormalities and deformity) and the base of the thumbs
- OA of the spine affecting the neck, lower back with wearing of the intervertebral discs – called spondylosis or spondylitis
- OA of large weight bearing joints such as hips and knees developing in the middle-aged or with overweight or a history of previous injury.

Symptoms of OA include pain and stiffness with pain at rest as well as after activity. Unlike Rheumatoid Arthritis, the pain is worse at the end of the day. Muscle weakness and a feeling of instability in the joint are characteristic. Sometimes there is a fluid build up within the joint.

Diagnosis of OA is by X-ray, which shows loss of cartilage, narrowing joint spaces and bony spur formation. MRI and arthroscopy may be useful to show extent of damage.

Various treatments are available for OA. It is important to keep the joint mobile through regular exercise. Exercise also reduces pain and increases muscular and ligamentous strength to support the joint and decrease joint deformity.

Medications include analgesics like paracetamol, NSAIDs (non-steroidal anti-inflammatory drugs) to treat inflammation and pain. Glucosamine and Chondroitin may be of benefit but studies are conflicting as to their benefit. Oral steroids are of no benefit but steroids may provide relief if injected into the joint as may injections of anaesthetic agents.

In severe cases joint replacement may be necessary.

OA is the fourth most common cause of years lost to disability!!

Underwriting Considerations

The identified risk factors for developing OA include increasing age, obesity, gender (females are more prone to developing this condition than males), and injury or continual joint stress. A genetic or hereditary link is also thought to exist. An underwriter will keep these risk factors in mind when assessing an application in which joint pain has been disclosed, but a diagnosis of OA might not yet have been made.

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Severity of OA generally falls into 4 defined classes – mild, moderate, severe and very severe. Symptoms in these classes range from minor intermittent pain only (mild) to confined to bed or wheelchair with significant restriction to normal daily activity (very severe). Generally a report from the treating physician will provide the information an underwriter will require.

OA is generally an additional underwriting risk for disability products only. Individuals presenting with mild to moderately severe OA are usually acceptable for Life and Trauma cover with no underwriting restriction. However there is an increased mortality risk associated with severe to very severe cases and therefore a premium loading may be applied, depending on number of joints affected, degree of physical impairment, and nature of current treatment.

Due to the progressive nature of OA, disability applications can expect some underwriting restriction, ranging from exclusion of arthritis and its treatment from the policy (for mild OA), to an outright decline of coverage for the more severe cases.

Rheumatoid arthritis

Rheumatoid arthritis (RA) is an autoimmune disease that occurs when the immune system attacks the tissues lining the joints of the body causing inflammation. Eventually the cartilage, bone and ligaments of the joint erode causing deformity, instability and scarring within the joint. The disease process may also affect other tissues in the body.

The incidence of RA is highest in the fourth and fifth decades of life but may occur at any stage of life including childhood. Women are affected more than men and it is more common in smokers.

Symptoms include tender swollen joints particularly the small joints of the hands and feet, shoulders and knees. Stiffness is common especially first thing in the morning lasting for at least 30 minutes and improves as the joint is used. Joints on both sides of the body may be affected simultaneously and persistent fatigue and weakness is another common symptom.

RA is predominantly a clinical diagnosis. Blood tests may confirm the disease but the disease can be present in the absence of positive blood tests. The blood picture may reflect inflammation (raised ESR and CRP) and a positive Rheumatoid Factor occurs in 70% of cases (but is often not elevated in the first 12 months of the disease). If Rheumatoid Factor is negative the disease is called sero-negative Rheumatoid Arthritis. X-rays in the early stages are unhelpful.

The extra-articular effects of RA may involve the skin, blood vessels, heart, lungs, eyes and muscles causing conditions such as vasculitis, pericarditis, pleuritis, scleritis, and subcutaneous nodules. 20-30% of sufferers develop rheumatoid nodules and these are associated with a poorer prognosis. Over the long-term severe joint deformities may develop and require surgical treatment.

Early treatment of RA is essential as it minimises damage to cartilage and bone in the joint. Treatment of RA includes anti-inflammatory drugs including corticosteroids (prednisolone) and NSAIDs (non-steroidal anti-inflammatory drugs) and painkillers. These drugs improve pain and stiffness but do not prevent joint damage or slow disease progression.

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The most effective treatment occurs with Disease Modifying Anti-Rheumatic Drugs (DMARDs). These drugs can induce remissions and delay or halt disease progression and can prevent bone and joint damage occurring due to uncontrolled inflammation. The most well known DMARD is methotrexate. Side effects may occur with these drugs including hepatitis and bone marrow suppression so treatment needs to be monitored through frequent blood tests and the drugs stopped if problems occur.

Maintaining physical activity is very important to maintain joint mobility and to strengthen the muscles around the joints, but when inflammation is severe rest is required.

The course of Rheumatoid Arthritis is variable. Some people have mild disease with long periods of remission. Others have a steadily progressive disease, which may progress slowly or rapidly. 1 in 10 becomes severely disabled. Poorer outcomes are associated with being female, positive Rheumatoid Factor, elevated ESR/CRP, functional impairment and HLA DR4 genotype.

After 5 years 33% of sufferers are unable to work and after 10 years 50% have substantial disability.

RA causes increased mortality. Estimations of lifespan reduction are 5 to 10 years. Mortality is affected by young age of onset, long duration, other health problems, extra-articular involvement, and joint damage on X-rays. The risk of heart disease in sufferers is doubled. The medications used to treat the disease, including prednisolone may cause their own complications.

Underwriting Considerations

RA presents a number of challenges for underwriters in assessing the additional insurance risk. The variable nature of the disease combined with the possible extra-articular effects makes assessing RA on an individual 'case by case' basis quite difficult.

A similar approach is taken to classifying the symptoms of RA – mild, moderate and severe. This ranges from minimal or no disease activity through to significant disease with possible extra-articular involvement requiring multiple levels of treatment, including steroid therapy.

The underwriter will need to confirm the severity and any current complications, and is likely to request the individual to undergo a number of blood tests; a current medical examination; and quite possibly a report from the treating specialist physician. This will allow the underwriter to provide the best possible terms based on the most current information.

The underwriting assessment will depend on a number of factors, including age at diagnosis, extent of disease and nature of treatment. Given the progressive nature of the disease, it is likely that all individuals presenting for insurance will incur a medical premium loading for life and trauma insurance, even for mild cases. Severe cases with other parts of the body (particularly the internal organs) involved may find obtaining any insurance difficult.

For income protection or TPD, due to the disabling nature of this disease, most insurers will consider terms for mild cases only. Terms may include a total exclusion for RA and its complications, a considerable premium loading, or even both – an exclusion for the disease itself and a premium loading to cover the additional risk of complications from medication used to treat the condition. Any cases of other than mild severity will find it difficult to obtain any level of disability insurance.