Treatments for Psoriatic Arthritis: An overview

This information is produced by the Psoriasis and Psoriatic Arthritis Alliance

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What are the aims of this leaflet

This leaflet has been written to help you understand the treatments currently available to treat psoriatic arthritis. The material is not designed as a replacement for your doctor's advice and we are not recommending any single treatment in preference to any other; the best treatment schedule is the one which you and your doctor have agreed is most suitable for your particular situation. You may wish to keep this leaflet for future reference and reread, if your treatments change over time.

About psoriasis and psoriatic arthritis

Psoriasis (sor-i'ah-sis) is a long-term (chronic) scaling disease of the skin which affects around 1 in 50 people, which is about 1.3 million, or around 2% of the UK population. It usually appears as red, raised, scaly patches known as plaques. In people with skin of colour, the redness is less pronounced. The plaques therefore may appear darker, brown, or purple patches with grey scales.

Any part of the skin surface may be involved but the plaques most commonly appear on the elbows, knees and scalp. It can be itchy but is not usually painful. Nail changes, including pitting and ridging, are present in nearly half of all those who have psoriasis. For those that have psoriasis around 1 in 4 may develop an associated psoriatic arthritis (PsA), which is about 325,000 people, or around 0.5% of the UK population. Psoriatic arthritis causes pain and swelling in the joints and tendons, accompanied by stiffness particularly in the mornings. The most commonly affected sites are the hands, feet, lower back, neck and knees, with movement in these areas becoming severely limited. For more detailed information, see our leaflets ***What is psoriasis?*** and ***What is psoriatic arthritis?***

What happens in psoriatic arthritis?

In psoriatic arthritis and some inflammatory diseases, the immune system doesn't work properly and this may cause inflammation to trigger damage by working against the body's own tissues. In psoriatic arthritis, inflammation is characterised by redness, warmth, swelling and pain. Inflammation is a process by which the body's inner defence mechanisms, the white blood cells and other substances, protect the body against infection and foreign invaders such as bacteria and viruses.

Although there are no cures for psoriatic arthritis, it can be controlled and go into remission. Not everyone will be affected in the same way and doctors will class the condition as mild, moderate or severe. The types of treatments offered can vary from mild drug therapies to physical therapies and surgery.

Please note: The treatments are listed alphabetically and not in any order of use or preference. The list is for reference only and you should always follow your healthcare provider's advice.

Biologics

Biologic agents are made from biological (human or animal-based) proteins rather than artificial chemicals, much in the way that insulin was made from animal sources in the past.

Biologic agents are different from other psoriatic arthritis medications as they are designed specifically to block particular parts of the immune system that cause inflammation. This is different to some other disease modifying drugs, like methotrexate, which generally suppress the immune system, or anti-inflammatories, which treat the symptoms of the disease.

It is thought that overactive cells in the immune system set off a series of events in the body, eventually causing psoriatic arthritis to develop in the joints and connective tissue.

Biologic agents work by blocking the action of specific immune messengers or targeting particular cells of the immune system. These messengers cause inflammation in certain cells by triggering the immune system. There are a range of biologic drugs used in psoriatic arthritis, some block a messenger called TNF (tumour necrosis factor), whereas other biologic drugs can block the activation of certain immune cells (often T cells in psoriatic arthritis) or the release of other messengers (called interleukin 12/23 or interleukin 17) from them. The biologic drugs act by copying the effects of substances naturally made by the immune system. The choice of which biologic drug to use will depend on the severity of your joint and skin disease and any other medical problems which you have.

In the UK they are not considered first-line therapy. There are recommendations from the National Institute for Health and Care Excellence (NICE), the Scottish Medicines Consortium (SMC) and the All Wales Medicines Strategy Group (AWMSG) which define who can access these treatments. Usually they are only available to patients who do not respond to systemic therapies such as methotrexate.

Biologic agents are given by injection or infusion and usually work quickly to relieve the symptoms and swelling associated with psoriatic arthritis. Although

studies show that most people will improve within four to six weeks of treatment, a majority will notice some improvement after the first or second injection or infusion. Some people, however, can take a fuller course to notice a response.

The most common side effects seen with injected medicines include skin reactions at the injection site. These occur in fewer than 1 in 3 (30%) of people and may last for up to two weeks. The most significant side effect of these medications is an increase in the risk of all types of infections, including tuberculosis (TB). Before starting a biologic therapy, your risk of TB is assessed and a TB skin or blood test is often carried out. The British Thoracic Society (BTS) guidelines state that Caucasian patients who are UK-born should not be tested, as the risk involved with TB prophylaxis (measures designed to preserve health) is higher than the risk of TB. Treatment with these agents should be stopped while you have an active infection and are taking an antibiotic, or if you have a high fever. People with significant congestive heart failure should not take these agents.

Corticosteroids

Corticosteroids are synthetic drugs that closely resemble cortisol, a hormone which the body produces naturally. They work by reducing inflammation and the activity of the immune system. They are used to treat a variety of inflammatory diseases and conditions.

Steroids reduce the production of inflammatory chemicals to help minimise tissue damage. They also reduce the activity of the immune system by affecting the function of white blood cells.

Examples of corticosteroid medications include cortisone, prednisolone and methylprednisolone. However, they should not be confused with anabolic steroids, which are a different group of drugs used by some athletes and weight lifters to build bigger muscles. Steroids can be given orally or by injection. Depending on the site of the inflammation, they can be injected into a vein or muscle, directly into a joint or bursa (the lubricating sac between certain tendons and the bones beneath them) or around tendons and other soft tissue areas.

In low doses, steroid tablets may provide significant relief from pain and stiffness for people with psoriatic arthritis. Temporary use of higher doses of steroids may help a person recover from a severe flare-up of the condition.

Steroid injections can be added to other interventions, including anti-inflammatory painkiller medications and physiotherapy. Whether one or more of these treatment methods are used depends on the nature of the problem.

Steroid injections can be one of the most effective ways to decrease pain and improve function, but they generally do not cure the illness.

Some people might develop side effects, although these will vary from person to person. As the effect of the steroid wears off, some people experience a flare of their condition. If steroid injections are infrequent (less than every three to four months) it is unlikely that long term side effects will occur.

Disease-modifying anti rheumatic drugs (DMARDs)

If a person has persistent inflammation in several joints for longer than six weeks, the doctor might prescribe a medication called a DMARD (pronounced dee-mard). They are usually prescribed in addition to non-steroid anti inflammatory drugs (NSAIDs), as NSAIDs are designed to reduce the day-to-day inflammation and the DMARD slows down the biological processes which cause the persistent inflammation.

The choice of a specific DMARD will depend upon the type of inflammatory arthritis. Sometimes finding the appropriate maintenance dosage can be a matter of trial and error, so the response may not be rapid. DMARDs are a diverse class of medications that approach the task of controlling persistent inflammation through different pathways, but each has been proven effective in its own way. The most commonly prescribed are: methotrexate, sulfasalasine, leflunomide, azathioprine, gold therapy, hydroxychloroquine, and chloroquine.

In psoriatic arthritis there is a risk of significant damage in the first two to three years before the disease is controlled. Doctors are prescribing DMARDs much earlier than in the past because the benefits of controlling damaging inflammation far outweigh the risks of reversible side effects.

These medications are routinely monitored by a doctor in order to minimise those risks. It can take up to several months before a person begins to feel sustained benefits. Speed of relief isn't the main driver of these medications; it is the medication's ability to control symptoms and an individual's ability to tolerate the medication over a long period of time that are important. The goal is to use the least amount of drug necessary to keep the inflammatory arthritis under control and, in so doing, reduce any potential side effects.

DMARDs come as tablets, capsules and, in some cases, injections; doses can range from once or twice daily to once a week. A doctor will likely have to adjust the medication from time to time, depending on the results seen through regular monitoring.

The greater benefits offered by DMARDs carry an increased risk of side effects. The vast majority of side effects are rare and virtually all are reversible by adjusting the daily dose or switching DMARDs. Still, some side effects are common, such as flu-like symptoms, mouth sores, diarrhoea and nausea.

Mechanical pain relief

TENS (Transcutaneous Electrical Nerve Stimulation) is a simple, non-invasive technique by which electrical currents, generated by a portable stimulating unit powered by small, low-voltage batteries, are passed through the skin surface via two or four electrodes to activate underlying nerves. Conductive gel or pre-gelled electrodes are used to decrease resistance across the skin-electrode connection and the electrodes can be concealed under clothing if necessary.

TENS produces a tingling sensation (electrical paraesthesia) within the painful area and the intensity and quality of electrical paraesthesia (ie pulse intensity, pulse frequency and pulse pattern) can be varied and controlled by the user according to his or her requirements. TENS has been shown to produce useful analgesic effects in all types of patients suffering from acute or chronic pain and has gained worldwide attention and use.

TENS has many advantages over conventional treatment for pain. It does not require surgical intervention and, unlike analgesic drugs, has no serious adverse effects. It can be used long-term and if necessary in conjunction with analgesics. Not every person responds to TENS treatment, however; the efficacy is approximately 6 in 10 (60%). The reason for non-response to TENS by the rest is unknown at this point in time. TENS machines are often available through the pain management service or from physiotherapists and are widely available from larger chemists or pharmacies.

Non-steroidal anti-inflammatory drugs (NSAIDs)

NSAIDs are commonly prescribed for the treatment of psoriatic arthritis and are symptom-modifying drugs. They act by reducing inflammation and suppressing prostaglandins. Prostaglandins play a valuable role within the body, but also drive the inflammatory process in arthritis. Many well-known products, such as aspirin and ibuprofen, are types of NSAIDs and are used for milder disease. Stronger drugs, only available on prescription from a doctor, might be offered if the milder treatments provide little or no benefit. It takes time to find the most effective treatment and doctors may try various doses and products before establishing the optimum regimen.

Because prostaglandins also provide other useful functions, suppressing their action can cause unwanted side effects, particularly on the stomach. Long-term use of NSAIDs has led to some individuals developing stomach ulcers.

Some drugs have a special enteric coating that prevents the drug from dissolving in the stomach but allows absorption in the small intestine, which makes it less irritating. For the same reason, a stomach-protecting medication might be offered to counteract this negative outcome or a selective NSAID that only targets certain elements of the inflammatory process may be considered.

Occupational therapy and rehabilitation

Occupational therapy helps people to manage, to the best of their ability, all types of daily activities and tasks which may have been impaired by physical or mental illness. An occupational therapist works as part of a multidisciplinary team. They either work for the health service or for social services. The two services work slightly differently but occupational therapists are all concerned with promoting a person's independence in everyday tasks to give the best possible quality of life.

To see an occupational therapist you will normally need a referral from a GP or consultant.

When someone has psoriatic arthritis, pain and stiffness may make everyday tasks more difficult. Occupational therapists aim to reduce the amount of stress placed on the joints. They will look at how an individual carries out daily tasks, assessing their physical restrictions as well as listening to how they are coping emotionally with them. They will then explore new ways to carry out tasks or suggest equipment which can help lessen stress to the joints or generally make life easier. For more information, see our ***Occupational Therapy & Psoriatic Arthritis*** leaflet.

Pain management

Pain management is offered for both acute and chronic pain. For pain related to psoriatic arthritis, pain relief can be given by rheumatologists and general practitioners. The main aim is to control the inflammation in the joints, after which the pain should improve. However, it can take some weeks before some treatments work effectively. For many patients, this can be managed with psychological techniques, eg meditation, analgesia (painkillers including paracetamol and non-steroidal anti-inflammatory drugs), TENS (discussed above) and simple solutions like hot or cold packs, splints to support joints and input from physiotherapy.

For more complex pain problems, there are around 500 pain management services in the UK, each run by a team of clinicians, including occupational therapists, psychologists, doctors, nurses and physiotherapists. Treatment is often combined to create a pain management programme, which can include group sessions aimed at teaching individuals how to live with pain by

using a variety of techniques in conjunction with their drug regimen. Techniques used may include psychological techniques such as meditation, cognitive behavioural therapy (CBT) and others. A referral from a GP or hospital specialist is required to see a pain management specialist or to join a pain management programme.

Podiatry

Podiatrists and chiropodists specialise in the treatment of problems associated with the foot and lower leg, most commonly the treatment of minor problems such as verrucas, athlete's foot and ingrowing toenails. For some people with psoriatic arthritis, podiatry can be a very useful service, not only for the obvious problems associated with nail psoriasis, but in assessing other problems associated with arthritis and providing simple solutions. These include orthotic devices or foot appliances such as inserts for shoes, which can help foot function, ease pain, improve gait and, most importantly, enable walking with reduced discomfort. Podiatrists work in a number of settings and individuals can be referred by a doctor or make appointments independently.

Physiotherapy

Psoriatic arthritis can lead to pain, swelling and stiffness in joints. You can prevent stiffness in a joint by putting it through a full range of movement on a daily basis. Regular exercise can also help maintain strength in the muscles, which makes daily tasks easier and can help you to maintain good posture. It has also been shown to reduce stress and improve mood, maintain bone density and reduce fatigue. So it is important to have an exercise programme you perform on a daily basis to ensure you remain as fit and healthy as possible.

Physiotherapists work both in the NHS and privately. They are experts in the examination and treatment of muscles and joints. Some physiotherapists have a special interest in conditions like psoriatic arthritis and will work closely with the local consultant rheumatologist. Your GP or consultant can refer you to see a physiotherapist in the NHS or you can self-refer to a private clinic.

Hydrotherapy is exercise in a warm pool. It is supervised by a physiotherapist, who uses the properties of water to help ease stiff joints and strengthen weak muscles. This service is not widely available in all areas of the UK. For more information, see our ***Physiotherapy & Exercise: Psoriatic Arthritis*** leaflet.

Surgery

It has to be remembered that in most cases psoriatic arthritis can be managed with early diagnosis and certain drug therapies, but unfortunately

some individuals may end up with a joint which has been so badly affected by the condition that it requires surgery.

Surgery can include very minor procedures, such as releasing a trapped nerve or removing painful linings to joints. The most common and radical surgery is to replace a full joint such as a knee or hip, but other joints, including the joints of the fingers, wrists, elbows, toes, ankles and shoulders, can also be replaced if they are badly damaged.

Success rates in joint replacement are variable; function and pain are the important drivers and hand operations in particular are difficult to weigh up as function can be much worse after surgery and very occasionally the replacement joint has to be removed. This can lead to considerable disability, so risk and benefit must be carefully assessed before these types of procedure are considered.

Targeted synthetic DMARDs

Targeted synthetic DMARDs are types of DMARDs that improve joint and skin symptoms. They block specific parts of the immune system, like biologic drugs, but they are chemical rather than biological and are given as a tablet rather than injection. One of these treatments blocks a chemical called PDE4. It can help joint pain and psoriasis but does not work for inflammation in the spine. Another drug currently available in this group blocks a chemical called JAK (Janus Kinase). There are a number of other drugs that block JAK also in development for the future. These can work for joints, skin and spinal disease.

Topical analgesics

Topical analgesics include creams, ointments, gels, and sprays for the treatment of acute musculoskeletal injuries and mild to moderate pain caused by arthritis. These products may have local analgesic, anaesthetic and anti-itch capabilities. Their use, and therefore benefit, is limited by an inability to be absorbed beyond the upper layers of the skin.

Lifestyle

Maintaining a healthier lifestyle is beneficial for anyone with psoriatic arthritis, but it is easy to lose confidence when you are in pain or have restricted mobility. It is also often difficult to keep fit under such circumstances, but avoiding exercise can increase the risk of associated conditions such as diabetes and cardiac heart disease. If you are worried about the effect that exercise may have because of any pre-existing conditions, speak to your doctor for advice. If you have not exercised for a while, start slowly and carefully and then build up. If you have swollen joints, it's best to take

exercise which is low-impact, such as cycling, swimming and using a cross-trainer machine, rather than running.

Other forms of treatment

Complementary therapies are increasingly popular. Some therapies commonly classed as complementary or alternative therapies include: acupuncture, the Alexander technique, aromatherapy, chiropractic, herbalism, homeopathy, osteopathy, reflexology and yoga.

REMEMBER: check the therapist's qualifications. The umbrella organisation for each therapy can tell you what training their members have undertaken, their code of ethics and refer you to qualified practitioners in your area. If you are on conventional medicine or treatments, tell your doctor you are also using complementary approaches. Check with your doctor if you are unsure about the safety of any complementary or alternative treatment.

Further reading

Research and development of new treatments is ongoing. To learn how a new therapy is developed and trialled see our ***Clinical Trials*** leaflet.

Summary

For any treatment to work it is essential to follow the guidance given by your healthcare provider. Always read the product labels and the patient information leaflet (PIL) supplied with your medication.

Occasionally, treatments suddenly stop working (tachyphylaxis) or feel less therapeutic. With no known cure at present, psoriatic arthritis is likely to be a lifelong disease, so it may be necessary for your doctor to change your medication or treatment regimen from time to time. Whatever treatment you and your healthcare provider decide is an appropriate course, make sure you report the benefits, improvement and any adverse reactions as this will ensure you get the very best level of care.

Useful contacts

For information about health matters in general and how to access services in the UK, the following websites provide national and local information.

- NHS UK: www.nhs.uk
- NHS England: www.england.nhs.uk/
- NHS Scotland: www.scot.nhs.uk/
- Health in Wales: www.wales.nhs.uk
- HSCNI Services (Northern Ireland): http://online.hscni.net

These sites are the official sites for the National Health Service and provide links and signposting services to recognised organisations and charities.

About this information

This material was produced by PAPAA. Please be aware that research and development of treatments is ongoing.

For the latest information or any amendments to this material please contact us or visit our website: www.papaa.org

The site contains information on treatments and includes patient experiences and case histories.

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Quality and accuracy

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