



Bronllys Hospital, Bronllys, Brecon, Powys, LD3 0LU

This Patient Group Direction (PGD) must only be used by registered physiotherapists who have been named and authorised by their organisation to practice under it. The most recent and in date final signed version of the PGD should be used. Health professionals should always access the PGD via the PTHB internet to ensure that they are always working to the most up to date version

Patient Group Direction

for the administration of

**Methylprednisolone acetate injection 40 mg/ml (Depo-Medrone®
40 mg/ml suspension for injection)**

by registered physiotherapists

to adults requiring joint/soft tissue injections

in community hospitals or primary care settings

in Powys Teaching Health Board

Version number: **PGD0058 C**

Change history

Version number	Change details	Date
PGD0058	Initial version	01.04.2012
PGD0058_A	Review	31 January 2019
PGD0058_B	Review	20/09/2019
PGD0058 C	<p>PGD updated and reinstated as per request submitted to the March '25 PGD subgroup.</p> <p>Minor formatting and wording changes, for consistency with other PTHB PGDs.</p> <p>Updated contents as per current reference sources, including advice regarding the requirement to issue a steroid card. Excluded use for tennis elbow (lateral epicondylitis) due to the NICE CKS recommendation not to routinely offer corticosteroid injection.</p>	23/06/2025

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

PGD authorisation

Name	Job title and organisation	Signature	Date
Senior doctor Dr Kate Wright	Lead doctor for PTHB	DocuSigned by: <i>Kate Wright</i> 1F267952823F473...	6/25/2025
Chief Pharmacist Jonathan Boyd	Chief Pharmacist for PTHB	Signed by: <i>Jon Boyd</i> 6D8ECFE8C9EB423...	6/19/2025
Senior representative of professional group using the PGD Claire Madsen	Executive Director of Therapies Health Science for PTHB	Signed by: <i>Claire Madsen</i> 51D92655B6B7468...	6/18/2025
Clinical Governance Lead Amanda Edwards	Clinical Governance Lead for PTHB – Assistant Director for Innovation and Improvement	DocuSigned by: <i>Amanda Edwards</i> 74A4E51A42E9473...	6/25/2025

[Appendix A](#) provides a staff accreditation sheet. Individual practitioners must be authorised by name to work to this PGD.

Those using this PGD must ensure that it is organisationally authorised and signed by an appropriate authorising person, relating to the class of person by whom the product is to be supplied, in accordance with Human Medicines Regulations 2012 (HMR2012)¹. **The PGD is not legal or valid without signed authorisation in accordance with [HMR2012 Schedule 16 Part 2](#).**

The final authorised copy of this PGD should be kept by PTHB for 8 years after the PGD expires.

¹ This includes any relevant amendments to legislation.

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

Training and competency of registered physiotherapists

	Requirements of registered physiotherapists working under the PGD
Qualifications and professional registration	<p>Practitioners must only work under this PGD where they are competent to do so. Practitioners working under this PGD must also be a registered professional with the following body:</p> <ul style="list-style-type: none"> Physiotherapists currently registered with the Health and Care Professions Council (HCPC) <p>AND</p> <ul style="list-style-type: none"> have a specialist qualification, for example, a Chartered Society of Physiotherapy recognised diploma or equivalent in injection therapy <p>The registered health professional should have a current contract of employment within Powys Teaching Health Board (PTHB). Practitioners must also fulfil the additional requirements listed below.</p> <p>Check Appendix A – Staff Accredited to use this Patient Group Direction to confirm whether all the registered practitioners listed above have organisational authorisation to work under this PGD.</p>
Initial training	<p>The registered healthcare professional authorised to operate under this PGD must have successfully completed appropriate education and training in:</p> <ul style="list-style-type: none"> The administration of methylprednisolone acetate 40mg/ml injection and knowledge of its uses, contraindications and adverse effects. The practitioner must also be alert to changes in the BNF and SPC. The competencies to undertake clinical assessment of patients ensuring safe provision of the medicines listed in accordance with local policy. The practitioner must also work in conjunction with the "PTHB PHY 005 Injection therapy protocol for physiotherapist and podiatrists undertaking soft tissue and joint injections". <p>Additionally practitioners:</p> <ul style="list-style-type: none"> must be authorised by name as an approved practitioner under the current terms of this PGD before working to it must have undertaken appropriate training for working under PGDs for supply/administration of medicines. Recommended training eLfh PGD eLearning programme. PTHB staff to access via ESR must be competent in the use of PGDs (see NICE Competency framework for health professionals using PGDs) must have undertaken training appropriate to this PGD as required by local policy

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • must have received training and be competent in the recognition, management of, and reporting of recognised adverse reactions, including anaphylaxis • must be competent in the administration of adrenaline (1 in 1000) and have up to date Basic Life Support (BLS) skills • must have completed locally required training (including updates) in safeguarding children and vulnerable adults or a minimum of level 3 safeguarding or the equivalent • must have access to the PGD and associated online resources • should fulfil any additional requirements defined by local policy • <p>THE PRACTITIONER MUST BE AUTHORISED BY NAME, UNDER THE CURRENT VERSION OF THIS PGD BEFORE WORKING ACCORDING TO IT.</p>
<p>Competency assessment</p>	<ul style="list-style-type: none"> • Evidence of ongoing PGD training to be submitted to Line Manager annually– this should include an annual completion certificate of PGD e-learning or a dated screenshot of the PGD e-learning assessment results as proof of completion. • Practitioners must be competent, recognise their own limitations and personal accountability and act accordingly. • Staff operating under this PGD are encouraged to review their competency using the NICE Competency Framework for health professionals using patient group directions. • Individuals operating under this PGD must be assessed as competent (see Appendix A) and complete a self-declaration of competency, following training, in their Personal Appraisal and Development Review (PADR). The personal development plan (yellow) section of the PADR booklet should be used to record completion of Statutory and Mandatory training, including annual PGD e-learning. • Evidence of training in BLS, anaphylaxis, and safeguarding.
<p>Ongoing training and competency</p>	<ul style="list-style-type: none"> • Individuals operating under this PGD are personally responsible for ensuring they remain up to date with the use of all medicines and guidance included in the PGD - if any training needs are identified these should be addressed and further training provided as required. • Updating at least every 2 years, or earlier in response to new local/national guidance, on the use of PGDs and methylprednisolone acetate 40mg/ml injection. • Practitioners must ensure they are up to date with relevant issues and clinical skills and management of anaphylaxis, BLS, with evidence of appropriate Continued Professional

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<p>Development (CPD), which must be retained and made available on request.</p> <ul style="list-style-type: none"> • Compliance with all mandatory NHS training including safeguarding at the level relevant to the role. • Evidence of ongoing / refresher training to be submitted to Line manager/ the Head of Physiotherapy annually. <p>It is the responsibility of the healthcare professional to maintain their own competency to practice within this PGD. The decision to administer any medication rests with the individual registered health professional who must abide by the PGD and any associated organisational policies.</p>
--	--

Clinical condition

Clinical condition or situation to which this PGD applies	<p>Musculoskeletal conditions in adults causing localised inflammation of joint or soft tissue/tendon, requiring a glucocorticoid effect: e.g. anti-inflammatory or anti-rheumatic for local use as follows:</p> <ul style="list-style-type: none"> • Intra-articular administration <ul style="list-style-type: none"> ○ Confirmed Rheumatoid arthritis ○ Osteoarthritis with an inflammatory component • Injection into tendon sheath: Medial epicondylitis (or other epicondylitis, BUT NOT lateral epicondylitis) • Intrabursal injection: Bursitis <p>It is the responsibility of the administering physiotherapist to ensure that the individual is within the inclusion criteria and that there are no reasons for exclusion before proceeding with the treatment. If there is any reason for concern, seek medical advice.</p>
Inclusion criteria	<ul style="list-style-type: none"> • Individual over 18 years old requiring corticosteroid therapy for alleviating joint pain, swelling or stiffness associated with conditions as above. • Patient presenting with a musculoskeletal condition that is not responding to conservative treatment such as physiotherapy and/or simple oral analgesics and/or non-steroidal anti-inflammatory drugs. • Informed consent, from the individual or a person legally able to act on the individual’s behalf, must be obtained prior to administration and recorded appropriately. Refer to PTHB Consent to Treatment and Examination Policy. The individual should be informed that they are being treated using a PGD. • Medical and drug history taken, no reason for exclusion • In case of any doubt, contact medical team.

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<p>Any vulnerable adult or child protection concerns should be referred to Safeguarding and the PTHB safeguarding policies followed, where appropriate. Consider discussing with GP. Where there are safeguarding concerns (Child Protection or Protection of Vulnerable Adults, POVA) advice from the local Safeguarding team should be sought (see below).</p>
<p>Exclusion criteria (Exclusion under this PGD does not necessarily mean the medication is contraindicated, but it would be outside its remit and another form of authorisation will be required)</p>	<ul style="list-style-type: none"> • Conditions outside of the clinical situations criteria • No valid consent, individual/representative refuses treatment, or a 'best-interests' decision, in accordance with the Mental Capacity Act 2005, has not been obtained or received. Refer to sections "Action to be taken if individual is excluded" or "Action to be taken if individual declines treatment". • Individual under 18 years of age • Known allergy or hypersensitivity to methylprednisolone acetate or to any ingredient of the medicine (see SPC for full list) • Cases when lidocaine injection is required along with Methylprednisolone- in those cases, consideration should be given to administering a combination product. • Lateral epicondylitis (Tennis elbow) • Steroid injection at the same site within the last 3 months • 3 or more steroid injections into the same joint or soft tissue in the past 12 months, or a maximum of 2 where a tendon is involved • Individual who is pregnant or breastfeeding • Active tuberculosis • Individual with septic shock • Individual with systemic infection unless specific anti-infective therapy is employed • Individual with active infection in or near the injection site. NB local injection of a steroid into a previously infected joint is to be avoided • Suspicion of infection • Carrier of chronic viruses, e.g.: HIV, hepatitis viruses • Presence of steroid arthropathy • Injections should not be performed during home visits • History of recent trauma, adjacent osteomyelitis • Unstable joint- corticosteroids should not be injected into unstable joints. • Prosthetic joint • Individual has been in contact with someone with chickenpox, measles or shingles and the individual has not already had these illnesses, or is unsure if they have had them • Treatment of spinal conditions

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • Not to be used for a weight-bearing joint that is due to undergo surgery within six months of the injection • Not to be administered if within one week of a planned surgical procedure • Complete heart block, severe or unstable heart conditions, congestive heart failure, or cardiac conduction disturbances • Hypothyroidism • Cushing’s disease • Individuals with poor diabetic control as corticosteroids may increase blood glucose • Tendon bodies and other avascular areas • Must not be used by intrathecal or intravenous route • Haemarthrosis • Weight-bearing tendons- not to be injected into the Achilles or Infrapatella tendons • Individual taking the following (also see interactions for further details): <ul style="list-style-type: none"> ○ Administration of live or live, attenuated vaccines is contraindicated in patients receiving immunosuppressive doses of corticosteroids (individual must not receive Methylprednisolone acetate injection within 4 weeks of receiving a live vaccine)
<p>Cautions / reasons for seeking further advice from a prescriber</p>	<ul style="list-style-type: none"> • Discuss with appropriate medical/ independent non-medical prescriber any medical condition or drug interaction of which the healthcare professional is unsure or uncertain, or if the individual has multiple complex pathologies, poly-pharmacy or history of drug allergies • Epilepsy /Seizure disorders • Cardiovascular risk factors: Adverse effects of glucocorticoids on the cardiovascular system, such as dyslipidaemia and hypertension, may predispose treated patients with existing cardiovascular risk factors to additional cardiovascular effects, if high doses and prolonged courses are used. Accordingly, corticosteroids should be employed judiciously in such patients and attention should be paid to risk modification and additional cardiac monitoring if needed • Hypertension or hypotension • Recent myocardial infarction (rupture reported) • Hyperthyroidism • Acute adrenal insufficiency • Individuals who have or may be predisposed to thromboembolic disorders • Individuals with a predisposition to thrombophlebitis • Liver failure or cirrhosis • Individuals with renal insufficiency • Myasthenia gravis- acute myopathy has been reported

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

- Infection : Corticosteroids may increase susceptibility to infection, mask some signs of infection, exacerbate existing infections, increase the risk of reactivation or exacerbation of latent infections and new infections may appear during their use. Suppression of the inflammatory response and immune function increases the susceptibility to fungal, viral and bacterial infections and their severity. The clinical presentation may often be atypical and may reach an advanced stage before being recognised. With increasing doses of corticosteroids, the rate of occurrence of infectious complications increases.
- Persons who are on drugs which suppress the immune system are more susceptible to infections than healthy individuals
- Individual with existing or previous history of severe affective disorders in themselves or in their first degree relatives (these would include depressive or manic-depressive illness and previous steroid psychosis)
- Ocular herpes simplex (risk of corneal perforation)
- Non-specific ulcerative colitis, if there is a probability of impending perforation, abscess or other pyogenic infection.
- Diverticulitis, recent intestinal anastomoses, active or latent peptic ulcer
- Glucocorticoid therapy may mask peritonitis or other signs or symptoms associated with gastrointestinal disorders such as perforation, obstruction or pancreatitis
- Acute pancreatitis
- Latent tuberculosis / tuberculin reactivity / history of tuberculosis or X-ray changes (close observation and frequent monitoring required)
- Traumatic brain injury
- Skin abscess
- Bleeding disorders
- Individual taking oral anticoagulants (see [interactions](#) for further details)
- Corticosteroids should only be administered to patients with suspected or identified pheochromocytoma after an appropriate risk/benefit evaluation (pheochromocytoma crisis has been reported, which can be fatal)
- Glaucoma (including a family history of glaucoma or susceptibility to)
- Diabetes (or if there is a family history of diabetes) – blood glucose may increase, pre-existing diabetes may worsen, and those on long-term corticosteroid therapy may be predisposed to diabetes mellitus
- History of steroid myopathy
- Individuals with systemic sclerosis because an increased incidence of scleroderma renal crisis has been observed with

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

corticosteroids – blood pressure and renal function should be routinely checked

- Osteoporosis (postmenopausal women and the elderly at risk)
- Elderly patients: treatment, particularly if long-term, should be planned bearing in mind the more serious consequences of the common side-effects of corticosteroids in old age, and close clinical supervision is required
- Individuals with tumours that have a high proliferative rate, high tumour burden and high sensitivity to cytotoxic agents, are at high risk of tumour lysis syndrome (TLS) and should be monitored closely and appropriate precautions taken
- Injections within one week of travel where access to services may be problematic
- Prolonged use
- History of drug allergy- Because rare instances of skin reactions and anaphylactic/anaphylactoid reactions have occurred in patients receiving corticosteroid therapy, appropriate precautionary measures should be taken prior to administration, especially when the patient has a history of drug allergy.
- Unusual stress
- Psychogenic pain or anxious patient
- Check for any other medications that the individual is taking, including topical or inhaled products, food supplements and herbal or homoeopathic products - refer to [BNF](#) and [SPC](#) for a full list. Also refer to [Drug Interactions](#) section. [Refer to a prescriber](#) if any concern of a clinically significant drug interaction and document advice given
- Concurrent or previous courses of systemic corticosteroids in the previous 12 months
- Care should be taken for patients receiving cardioactive drugs such as digoxin because of steroid induced electrolyte disturbance/potassium loss
- Corticosteroids have been shown to impair fertility in animal studies

NB. This list is not exhaustive- a full list of special warnings and precautions for use are available in the [SPC](#).

[Refer to GP/](#) call medical cover for advice and document advice given.

Under Section 128 and 130 of the Social Services and Wellbeing (Wales) Act 2014, staff have a duty to inform the Local Authority if they have reasonable cause to suspect that an adult or child is at risk. Any vulnerable adult or child protection

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<p>concerns should be referred to Safeguarding and PTHB safeguarding policies followed. Consider discussing with GP. Any safeguarding concerns need to be directed to Safeguarding Hub:</p> <ul style="list-style-type: none"> To generic email address: PowysTHB.Safeguarding@wales.nhs.uk <p>And</p> <ul style="list-style-type: none"> Central Safeguarding number: 01686 252806 Out of hours: 0345 0544847 <p>Advice can also be sought from local Safeguarding leads</p>
Arrangements for referral for medical advice	Contact GP for advice via the surgery or the emergency on-call service. Document advice given.
Action to be taken if individual excluded	<ul style="list-style-type: none"> Explain reason to the individual/carer and document in the consultation record. Consider if there is an alternative treatment. If appropriate refer to GP / DGH / out of hours service; offer alternative management if appropriate. Record any actions taken.
Action to be taken if individual declines treatment	<ul style="list-style-type: none"> The patient information leaflet should be available to inform consent. Explain the consequences of refusing treatment. Document refusal and action taken in individual's records, including any advice given. Discuss any appropriate alternative treatments. Inform or refer to GP/follow local procedures as appropriate.

Details of the medicine

Name, form and strength of medicine	Methylprednisolone acetate 40 mg/ml (Depo-medrone®) aqueous suspension for injection
Legal category	POM (Prescription only medicine)
Indicate any off-label use	<p>Not applicable, unless Methylprednisolone acetate has not been stored under the correct conditions (see below).</p> <p>Medicines should be stored according to the conditions detailed in the storage section in this document. However, in the event of an inadvertent or unavoidable deviation of these conditions, the local Medicines Management team must be consulted. Where drugs have been assessed by Medicines Management in</p>

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<p>accordance with national or specific product recommendations as appropriate for continued use this would constitute off-label administration under this PGD. The responsibility for the decision to release the affected drugs for use lies with Medicines Management. Where a product is recommended off-label consider, as part of the consent process, informing the individual or their carer that the product is being offered in accordance with national guidance, but this is outside the product license.</p>
<p>Route/method of administration</p>	<ul style="list-style-type: none"> • Injections are limited to intra-articular, injection into tendon sheath, or intrabursal • Depo-Medrone® injection must not be used by the intrathecal or intravenous routes • Appropriate measures must be taken to avoid intravascular injection • Depo-Medrone® vials are intended for single dose use only <p>Method:</p> <ul style="list-style-type: none"> • The usual sterile technique and precautions should be observed with each injection. • Parenteral drug products should be inspected visually for particulate matter and discolouration prior to administration, whenever suspension and container permit. • Depo-Medrone® must not be mixed with any other suspending agent, solution, fluid or preparation, since to do so would create an unlicensed preparation which would invalidate the PGD. • Refer to the SPC for further information on administration. • In order to minimise the incidence of dermal and subdermal atrophy, care must be exercised not to exceed recommended doses in injections. Multiple small injections into the area of the lesion should be made whenever possible. The technique of intra-articular injection should include precautions against injection or leakage into the dermis. Injection into the deltoid muscle should be avoided because of a high incidence of subcutaneous atrophy. • Discard any remaining suspension after use. Any unused medicinal product or waste material should be disposed of in accordance with local requirements. • The patient will be assessed after 5 minutes for any local/systemic adverse reaction to the injection and/or bleeding. The patient will be asked to remain in the clinic for a further 20-30 minutes for ongoing observation.
<p>Dose and frequency</p>	<p>Intra-articular Injection (dose depends upon the size of the joint and the severity of the condition)</p>

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • Small joint (metacarpophalangeal, interphalangeal, sternoclavicular, acromioclavicular): 4-10 mg (0.1 - 0.25 ml) • Medium joint (wrist): 10 – 40 mg (0.25 – 1 ml) • Large joint (knee, ankle, shoulder): 20- 80 mg (0.5 to 2 ml) <p>Injection into tendon sheath</p> <ul style="list-style-type: none"> • 4 – 30 mg (0.1 – 0.75 ml) <p>Intrabursal injection</p> <ul style="list-style-type: none"> • 4-30 mg (0.1- 0.75 ml) <p>Undesirable effects may be minimised by using the lowest effective dose for the minimum period.</p> <p>Frequency: Repeated injections, if needed, may be given at appropriate intervals, but a minimum three-month interval between injections within same site should be adhered to. No more than 3 injections, in any one site (or 2 where a tendon is involved) may be given within a 12 month period, in one episode of care (depending on the degree of relief obtained from the initial injection).</p> <p>NB. Intrabursal injections: In most cases, repeat injections are not needed.</p> <p>An episode of care is defined as the period from referral/diagnosis through to the completion or last encounter related to that problem.</p>
Quantity to be administered	Single dose based on location and joint size as per doses above
Maximum or minimum treatment period	There should be no more than 3 injections into the same joint (observing a 3 month gap between injections) over a 12-month period, or no more than 2 injections over a 12 month period where a tendon is involved.
Storage	Do not store above 25°C. Do not freeze. Store in line with guidance in MMP 001 (Medicines Policy) and the manufacturers recommendations in the SPC .
Drug interactions	<p>All concomitant medications must be checked for interactions.</p> <p>Administration of live or live, attenuated vaccines is contraindicated in patients receiving immunosuppressive doses</p>

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

of corticosteroids- see [exclusion criteria](#).

Anticoagulants (oral) (Vitamin K Antagonists) e.g., warfarin, acenocoumarol, fluindione: the efficacy of these anticoagulants may be enhanced by concurrent corticosteroid therapy and close monitoring of the INR or prothrombin time is required. There are also reports of diminished effects of anticoagulants when given concurrently with corticosteroids.

Nonsteroidal anti-inflammatory agents should be used cautiously in conjunction with corticosteroids, due to increased incidence of gastrointestinal bleeding and ulceration.

Aspirin: methylprednisolone may increase the clearance of high-dose aspirin, which can lead to decreased salicylate serum levels. Discontinuation of methylprednisolone treatment can lead to raised salicylate serum levels, which could lead to an increased risk of salicylate toxicity.

Salicylates and non-steroidal anti-inflammatory agents should be used cautiously in conjunction with corticosteroids in hypothermia.

Anticholinergics: acute myopathy has been reported in patients receiving concomitant therapy with anticholinergics, such as neuromuscular blocking drugs (e.g. pancuronium).

Competitive neuromuscular blockers: Antagonism of the neuromuscular blocking effects of pancuronium and vecuronium has been reported - this interaction may be expected with all competitive neuromuscular blockers.

Anticholinesterases: Steroids may reduce the effects of anticholinesterases (such as distigmine and neostigmine) in myasthenia gravis.

Potassium-depleting agents (e.g. diuretics, amphotericin B, xanthenes, or beta2 agonists): patients should be observed closely for hypokalaemia.

Hypoglycaemic agents, anti-hypertensives and diuretics: The desired effects of hypoglycaemic agents (including insulin), anti-hypertensives and diuretics are antagonised by corticosteroids, and the hypokalaemic effects of acetazolamide, loop diuretics, thiazide diuretics and carbenoxolone are enhanced. Because corticosteroids may increase blood glucose concentrations, dosage adjustments of antidiabetic agents may be required.

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

Co-treatment with CYP3A inhibitors is expected to increase the risk of systemic side-effects. The combination should be avoided unless the benefit outweighs the increased risk of systemic corticosteroid side-effects, in which case patients should be monitored for systemic corticosteroid side-effects. For example:

- isoniazid (CYP3A4 inhibitor): the acetylation rate and clearance can be increased by methylprednisolone.
- troleandomycin (CYP3A4 inhibitor): can increase the effects and the side effects of methylprednisolone.

Co-treatment with CYP3A4 inducers generally results in decreased plasma concentration of medications that are substrates for CYP3A4. Co-administration may require an increase in methylprednisolone dosage to achieve the desired result. For example:

- rifampicin (antibiotic CYP3A4 inducer)
- rifabutin (hepatic enzyme inducer)
- phenobarbitone and phenytoin (anticonvulsants CYP3A4 inducers)
- primidone (hepatic enzyme inducer)
- aminoglutethimide (aromatase inhibitor):
Aminoglutethimide-induced adrenal suppression may exacerbate endocrine changes caused by prolonged glucocorticoid treatment.

Co-treatment with CYP3A4 substrates may affect the hepatic clearance of methylprednisolone, with corresponding dosage adjustments required. It is possible that adverse events associated with the use of either drug alone may be more likely to occur with co-administration. For example:

- immunosuppressants like cyclophosphamide and tacrolimus are substrates of CYP3A4.

The following are mixed CYP3A examples:

- ciclosporin (CYP3A4 inhibitor and substrate): convulsions have been reported with concurrent use and it is possible that other adverse effects associated with the individual use of either drug may be more apt to occur.
- carbamazepine (anticonvulsant CYP3A4 inducer and substrate)
- clarithromycin, erythromycin, itraconazole and ketoconazole (CYP3A4 inhibitors and substrates): may increase the effects and the side effects of methylprednisolone.
- itraconazole and ketoconazole (antifungal CYP3A4 inhibitors and substrates): may inhibit the metabolism of corticosteroids and thus decrease their clearance.
- antiemetics: aprepitant and fosaprepitant (CYP3A4 inhibitors)

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<p>and substrates)</p> <ul style="list-style-type: none"> • antivirals - HIV protease inhibitors: Indinavir, ritonavir and pharmacokinetic enhancers (cobicistat) (CYP3A4 inhibitors and substrates) may increase plasma concentrations of corticosteroids. Corticosteroids may induce the metabolism of HIV-protease inhibitors resulting in reduced plasma concentrations. • calcium channel blocker - Diltiazem (CYP3A4 inhibitor and substrate). • contraceptives (oral) - Ethinylestradiol/norethindrone (CYP3A4 inhibitors and substrate) <p>NB. This list is not exhaustive. A detailed list of drug interactions is available in the BNF https://bnf.nice.org.uk and SPC http://www.medicines.org.uk. Refer to a prescriber if any concern of a clinically significant drug interaction and document advice given.</p>
<p>Identification, management and reporting of adverse effects</p>	<p>Systemic absorption of methylprednisolone occurs following intra-articular injection of Depo-Medrone®. Systemic as well as local effects can therefore be expected.</p> <p>The following side effect is listed in the product SPC as common (this list does not reflect all reported side effects- refer to SPC for further information):</p> <ul style="list-style-type: none"> • Osteoporosis is a common but infrequently recognised adverse effect associated with a long-term use of large doses of glucocorticoid. <p>This list is not exhaustive. A detailed list of adverse reactions is available in the SPC, available from www.medicines.org.uk, and BNF https://bnf.nice.org.uk.</p> <p>MHRA/CHM advice: Corticosteroids: rare risk of central serous chorioretinopathy with local as well as systemic administration (August 2017): If a patient presents with symptoms such as blurred vision or other visual disturbances, the patient should be considered for referral to an ophthalmologist for evaluation of possible causes which may include cataract, glaucoma or rare diseases such as central serous chorioretinopathy (CSCR) which have been reported after use of systemic and topical corticosteroids.</p> <p>All adverse drug reactions (ADRs) must be recorded in the individual's medical record and the individual's GP should be informed.</p>

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

If the individual suffers from any of the following symptoms, they should seek IMMEDIATE medical attention:

- Pancreatitis, stomach pain spreading to the back, possibly accompanied by vomiting, shock and loss of consciousness.
- Ulcers or bleeding ulcers, symptoms of which are severe stomach pain which may go through to the back and could be associated with bleeding from the back passage, black or bloodstained stools and/or vomiting blood.
- Infections, this medicine can hide or change the signs and symptoms of some infections, or reduce your resistance to the infection, so that they are hard to diagnose at an early stage. Symptoms might include a raised temperature and feeling unwell. Symptoms of a flare up of a previous TB infection could be coughing blood or pain in the chest. This medicine may also make you more likely to develop a severe infection.
- Following intra-articular injection, the occurrence of a marked increase in pain accompanied by local swelling, further restriction of joint motion, fever, and malaise are suggestive of septic arthritis.
- Peritonitis, an inflammation (irritation) of the peritoneum, the thin tissue that lines the inner wall of the abdomen and covers most of the abdominal organs. Symptoms are, the stomach (abdomen) being very painful or tender, the pain may become worse when the stomach is touched or when you move.
- Pulmonary embolus (blood clot in the lung) symptoms include sudden sharp chest pain, breathlessness and coughing up blood.
- Thrombophlebitis (blood clots or thrombosis in a leg vein), symptoms of which include painful swollen, red and tender veins.
- Muscle weakness, especially in patients with hyperthyroidism (Thyrotoxic Periodic Paralysis (TPP) can occur in patients with hyperthyroidism and with methylprednisolone-induced hypokalaemia). Refer to [SPC](#) for further details.
- Allergic reactions such as skin rash, swelling of the face or wheezing and difficulty breathing or dizziness

In case of an acute anaphylactic reaction occurring, adequate treatment provision must be available for immediate use:

Anaphylaxis and resuscitation equipment including adrenaline (1 in 1000) injection and a working telephone must be available.

In case of anaphylaxis:-

- Refer to [adrenaline \(epinephrine\) PGD 0017](#) and [anaphylaxis procedure](#)
- Request medical assistance urgently. If the GP is not immediately available dial 999 to transfer to A&E

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • Ensure reaction is fully documented in patient notes • Ensure all patient records are marked ALLERGIC TO methylprednisolone acetate. • The patient may be advised to wear a MedicAlert or similar device to alert other healthcare providers <p>All significant adverse drug reactions should be reported via the Once for Wales Reporting System.</p> <p>Healthcare professionals and individuals/carers are encouraged to report suspected adverse reactions to the Medicines and Healthcare products Regulatory Agency (MHRA) using the Yellow Card reporting scheme on: http://yellowcard.mhra.gov.uk or search for MHRA Yellow Card in the Google Play or Apple App Store. For established medicines, serious adverse events in adults or all suspected adverse reactions in children that may be attributable to the medication should be reported. Guidance on the yellow card system is available at the back of the BNF, or using the above link.</p>
<p>Records to be kept</p>	<p>Record consultation details via WCCIS, as required by local procedures, also following PTHB PHY 005 Injection Therapy Protocol for Physiotherapist and Podiatrists undertaking soft tissue and joint injections.</p> <p>In addition, record:</p> <ul style="list-style-type: none"> • That valid informed patient consent to treatment was obtained or a decision to treat was made in the individual's best interests in accordance with the Mental Capacity Act 2005. Record name of representative who gave consent if appropriate. If the individual has refused treatment, and any advice given in this circumstance • Name of individual, address, date of birth, GP contact details (where appropriate) and how the patient met the criteria of the PGD (patient inclusion or exclusion from PGD) • Relevant past and present medical and drug history taken including any allergies and previous adverse events • Examination findings, where relevant • Any reasons for exclusion or referral, including actions taken, referral arrangements made, and advice given • Any advice received from medical cover and advice given to the individual/carer • That the drug is being administered in accordance with PGD 0058 • Date and time of administration • Name, form, strength, route and dose of drug administered, detailing injection site and volume administered

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • Manufacturer and expiry date(s) of methylprednisolone acetate • Details of any adverse reactions and actions taken • The record must include the printed name and signature (or a password controlled e-records) of the Physiotherapist responsible for the administration • Relevant information that was provided to the individual or their carer • The referrer and responsible GP should be informed of the treatment provided as per local practice <p>The record must be kept securely for a defined period in line with local policy.</p> <p>All records should be clear, legible and contemporaneous.</p> <p>A record of all individuals receiving treatment under this PGD should also be kept for audit purposes in accordance with local policy.</p>
--	--

Patient information

<p>Written/verbal information to be given to individual or carer</p>	<ul style="list-style-type: none"> • Provide patient information leaflet (PIL) supplied with the product, and advise the individual/carers to read the PIL. Where applicable, inform the individual or carer that large print, Braille or audio CD PILs may be available from emc accessibility (freephone 0800 198 5000) by providing the medicine name and product code number, as listed in the product’s SPC. • Explain indication, contraindications, potential side effects and cautions as documented in the PIL, plus expected benefit/duration of effect. Explain that intra-articular corticosteroid injections typically only provide short-term relief for 2–10 weeks. • Provide a copy of the Powys PIL: - “INFORMATION FOR PATIENTS RECEIVING INJECTION THERAPY” contained within PTHB PHY 005 Injection therapy protocol for physiotherapist and podiatrists undertaking soft tissue and joint injections. • Patient to remain seated in waiting area for 20-30 minutes post injection in case of adverse event. • Patient should be given post-injection advice regarding care of injection site, how to monitor for signs or symptoms of infection, and what to do if signs of infection appear. • The clinician must use clinical reasoning to provide appropriate advice about activity specific to the patient (subsequent to therapy with an intra-articular injection, care should be taken for the patient not to overuse the joint in
---	---

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

which benefit has been obtained. Negligence in this matter may permit an increase in joint deterioration that will more than offset the beneficial effects of the steroid).

- Undesirable effects, such as dizziness, vertigo, visual disturbances, and fatigue are possible after treatment with corticosteroids. If affected, patients should not drive or operate machinery.
- Individuals who have received three or more intra-articular/intramuscular injections within the last 12 months must be supplied with a National Steroid Treatment Card (available via www.weds-wales.co.uk/steroid-therapy/), which has been completed with the details of the medicine. The individual must be reminded to always carry this, to seek medical attention during illness, and to show the steroid card to anyone who treats them (such as a doctor, nurse, pharmacist or dentist) whilst taking this medicine, and for 12 months after stopping.
- Individuals without a definite history of chickenpox should be advised to avoid close personal contact with chickenpox or herpes zoster/shingles. If a previously uninfected patient is subsequently diagnosed with chickenpox, inform the patient/carer that this will require specialist care and urgent treatment.
- Patient/carer should be advised to avoid exposure to measles and to seek medical advice without delay if exposure occurs.
- Individuals and/or carers should be warned that potentially severe psychiatric adverse reactions **may** occur; symptoms typically emerge within a few days or weeks of starting treatment. Individuals/carers should be encouraged to seek medical advice if worrying psychological symptoms develop, especially if depressed mood or suicidal ideation is suspected. Individuals/carers should be alert to possible psychiatric disturbances that may occur either during or immediately after dose tapering/withdrawal of systemic steroids.
- Before having any operation, the individual must tell their doctor, dentist or anaesthetist that they have had this injection.
- If the individual requires a test to be carried by a doctor or in hospital it is important they are informed that the individual is taking Depo-Medrone®. This medicine can affect the results of some tests.
- Individual must be advised to contact their doctor promptly if they experience muscle pain or weakness, muscle aches, cramps and stiffness, or red-brown change in the colour of the urine while using methylprednisolone.

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

	<ul style="list-style-type: none"> • Individual/carer should be advised to report any blurred vision or other visual disturbances to an ophthalmologist. • Do not drink grapefruit juice. • In people with established rheumatoid arthritis, glucocorticoids will only be continued long-term when the long-term complications of glucocorticoid therapy have been fully discussed and all other treatment options (including biological and targeted synthetic DMARDs) have been offered.
<p>Follow-up advice to be given to individual or carer</p>	<p>Inform the individual/carer of possible side effects and their management.</p> <p>Advise them to seek medical advice immediately if the individual has any unexpected reaction or other cause for concern. Contact GP via surgery or emergency on-call service. The patient will be offered a follow-up appointment by the Physiotherapist (frequent patient review is required to appropriately titrate the dose against disease activity and to monitor for the development of infection).</p>

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

Key references

- BNF online, accessed via <https://bnf.nice.org.uk/> on 03/04/2025
- Summary of product Characteristics (SPC) – available at www.medicines.org.uk Depo-Medrone® Pfizer. Last updated 14/03/2025
- Patient Information Leaflet (PIL): available at www.medicines.org.uk Depo-Medrone® Pfizer. Last updated 02/2025
- [NICE CKS Olecranon bursitis](#) Revised May 2024
- [NICE CKS Tennis Elbow](#) Revised November 2020
- [NICE CKS Osteoarthritis](#) Revised December 2023
- [NICE CKS Rheumatoid arthritis](#) Revised January 2024
- [NICE Guideline 226 Osteoarthritis in over 16s](#) Published 19 October 2022
- [NICE Guidance 100 Rheumatoid arthritis in adults: management](#) Last updated 12 October 2020
- [Welsh Health Circular 2021/008](#): revised national steroid treatment card
- [PSN057 June 2021](#): Emergency Steroid Therapy Cards: Supporting Early Recognition & Management of Adrenal Crisis in Adults and Children

Reference Number: PGD 0058C

Valid from: 23/06/2025

Review date: 23/12/2027

Expiry date: 22/06/2028

Competency check list for manager or senior team lead to use as part of the authorising process for health professionals to work to a Patient Group Direction (PGD). Review of authorisation will take place on each PGD update and at the individual’s annual PADR.

Name: Role:		Sign / Initial	Further training identified (Y/N) Specify in "comment s"	Comments
1	The PGD sign off is for the following PGD:(document the exact title and PGD number)			
2	We have discussed the expiry of the PGD and are using a version accessed electronically			
3	The member of staff has the appropriate qualifications and professional registration as outlined in the PGD			
4	The Patient Group Direction has been read in full by the staff member			
5	The identified training has been completed as specified in the PGD and is in date			
6	We have discussed some examples of inclusion criteria and exclusion criteria			
7	The staff member is confident in the administration method and doses			

Staff member print & sign name		Date
Manager or senior team lead to print & sign name		Date

Please send a copy of this completed form to individual’s line manager and to the staff member, in conjunction with the PGD Appendix A authorisation sheet. A copy of this form should also be kept by service lead in the training file.