

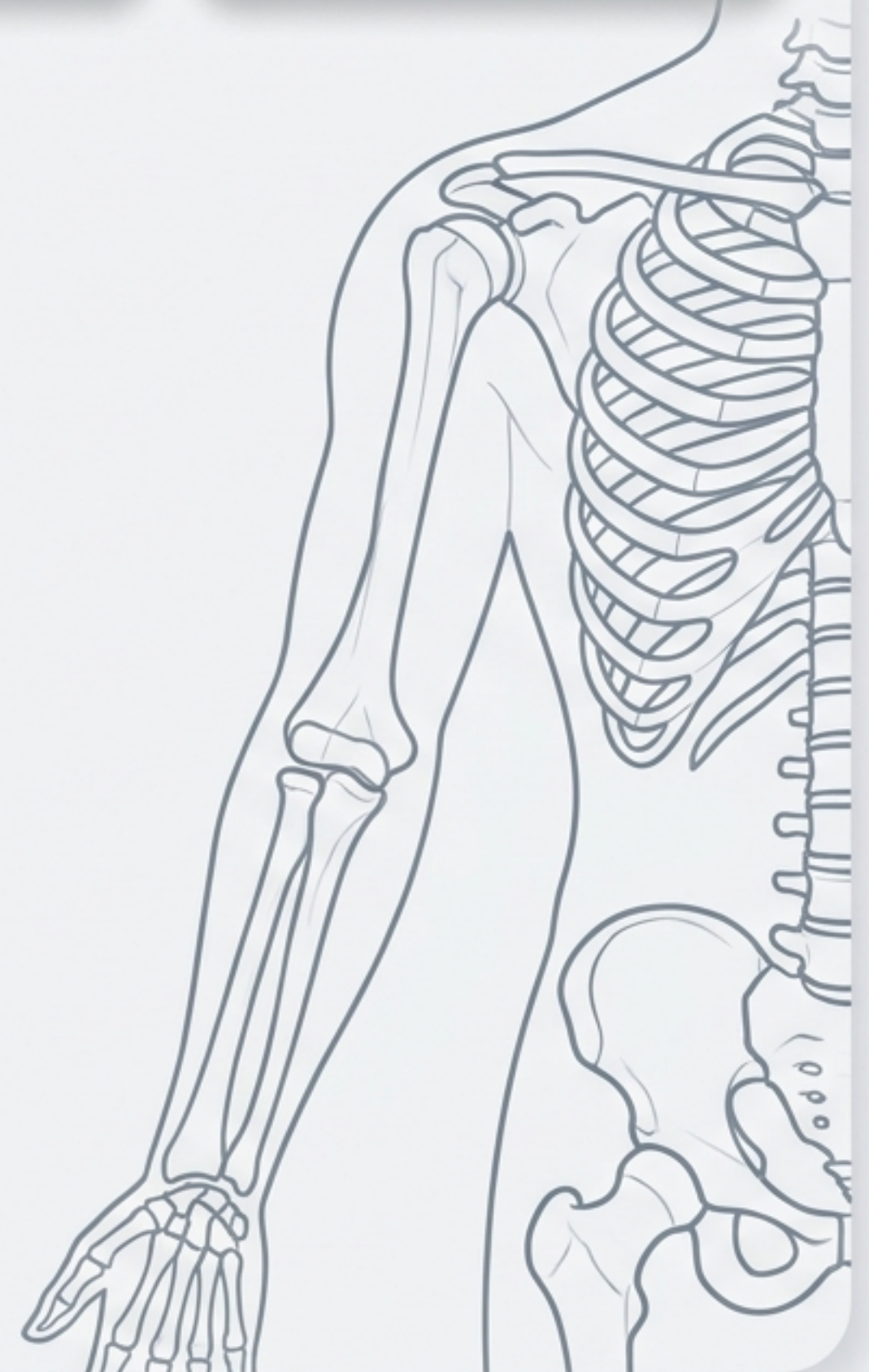
Australian Context

MBS/PBS Aligned

2012 EULAR/ACR Criteria

Polymyalgia Rheumatica

The Clinical Playbook: Diagnosis,
Tapering, and Risk Mitigation



EPIDEMIOLOGY & GENETIC MARKERS



INCIDENCE:

~80 PER 100,000
PERSON-YEARS
(AUSTRALIANS ≥50)



PEAK AGE:

70-80



F:M RATIO:

2-3:1



LIFETIME RISK
(AUSTRALIAN WOMEN):

2-3%

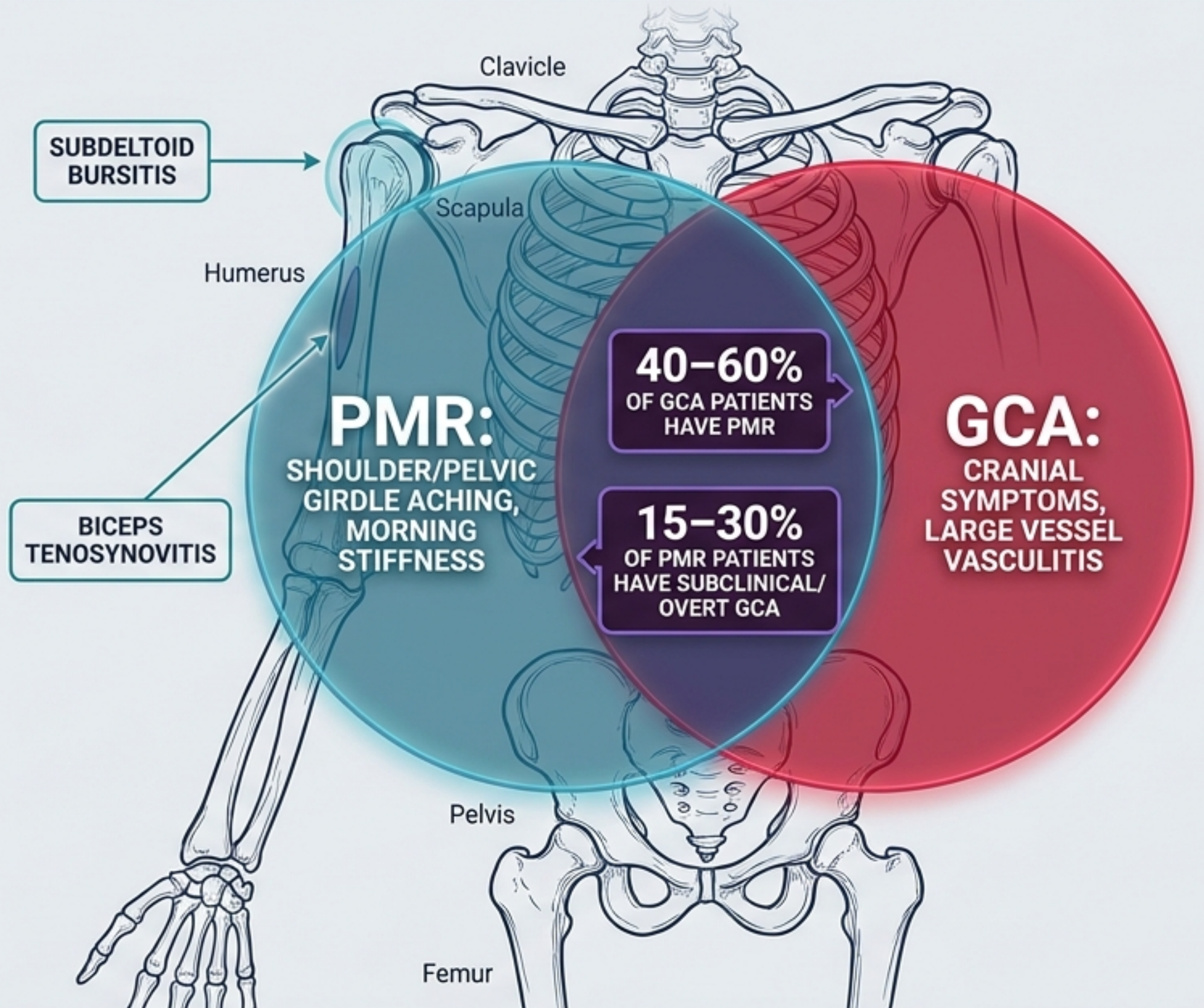
HLA-DRB1*04

INTERLEUKIN-6 (IL-6)

TNF- α

INTERFERON-GAMMA

THE OVERLAP: PMR & GCA SPECTRUM





Classification criteria designed for research – clinical judgement paramount. Exclude mimics before initiating long-term steroids.

Prerequisites (Must have all 3)

Age \geq 50 years

New bilateral shoulder aching

Abnormal CRP and/or ESR

Scoring Matrix

Morning stiffness >45 mins:	+2 points	Absence of other joint involvement:	+1 point
Absence of RF and/or ACPA:	+2 points	US: ≥ 1 shoulder bursitis/tenosynovitis/synovitis:	+1 point
Hip pain or limited ROM:	+1 point	US: Bilateral shoulder findings:	+1 point



Clinical Only (Score ≥ 4)
93% Sens, 78% Spec



With Ultrasound (Score ≥ 5)
91% Sens, 72% Spec



Essential Bloods

Inflammatory Markers:

ESR: Typically >40 ,
often **70-100**

CRP: Elevated in $>95\%$



Pearl: Normal in $\sim 5\%$
of true PMR cases.

Baselines:

FBC: Normocytic anaemia
in $\sim 50\%$

LFTs: Mild ALP elevation
in $\sim 30\%$

UEC, Calcium, Glucose



Essential Serology

RF & ACPA:

MUST be negative.

Positive results flag
rheumatoid arthritis.



PBS Items:

69482 (RF),
69484 (ACPA)



Imaging Options

Ultrasound (Available):

Look for subdeltoid bursitis,
biceps tenosynovitis.

Enhances confidence.

MRI (Available):

Use when uncertain.

Shows peri-articular
oedema. MBS Item 63521.

FDG-PET/CT (Specialist):

Differentiates malignancy.
Not MBS funded for PMR.

The PMR Mimic Matrix

**MANDATORY TO EXCLUDE PRIOR TO
PRIOR TO STEROID INITIATION**

Differential Diagnosis	Key Distinguishing Features
Late-onset Rheumatoid Arthritis (LORA)	Symmetrical small-joint synovitis , positive RF/ACPA, erosive X-ray changes
Inflammatory Myopathy (Polymyositis)	Proximal weakness > pain, elevated CK, abnormal EMG/biopsy
Multiple Myeloma	Bone pain, hypercalcaemia , renal impairment, raised total protein (SPEP)
Hypothyroidism	Stiffness, fatigue, weight gain ; abnormal TSH/free T4
Infective Endocarditis	Fever , new murmur , positive blood cultures
Calcium Pyrophosphate Deposition	Acute/chronic inflammatory arthropathy , chondrocalcinosis on X-ray



THE RED FLAG PIVOT: GIANT CELL ARTERITIS.

Untreated GCA causes irreversible bilateral blindness.
Screen **EVERY** patient at **EVERY** visit.

Symptom Checklist (Any 1 = Act)

- ! New-onset headache (temporal)
- ! Jaw claudication
- ! Visual disturbance (amaurosis fugax, diplopia)
- ! Scalp tenderness
- ! Limb claudication

1. Immediate High-Dose Steroids

Do NOT delay for imaging. Prednisolone 50–60 mg/day PO.
Methylprednisolone 500mg-1g IV if visual symptoms.

2. Ultrasound (<7 days)

Look for "Halo sign" (oedematous wall).
Negative does not exclude GCA.

3. Biopsy (1-2 weeks)

Gold standard. Positive up to 4-6 weeks into steroid treatment.

4. Advanced Imaging

CT/MR angiography to assess large-vessel involvement.

The Therapeutic Trial: An excellent response within 1–2 weeks is diagnostic. Failure to respond demands diagnostic re-evaluation.

Isolated PMR

Drug: Prednisolone (Solone[®], Panafcortelone[®]). **PBS General Benefit.**

Dose: 12.5–25 mg/day PO (EULAR: 12.5mg; Aus practice: 15-20mg)

Timing: Once daily, morning with food (mimics cortisol rhythm).

Adjustments: No hepatic/renal dose adjustments required.

PMR + GCA Suspected

Dose: 40–60 mg/day PO

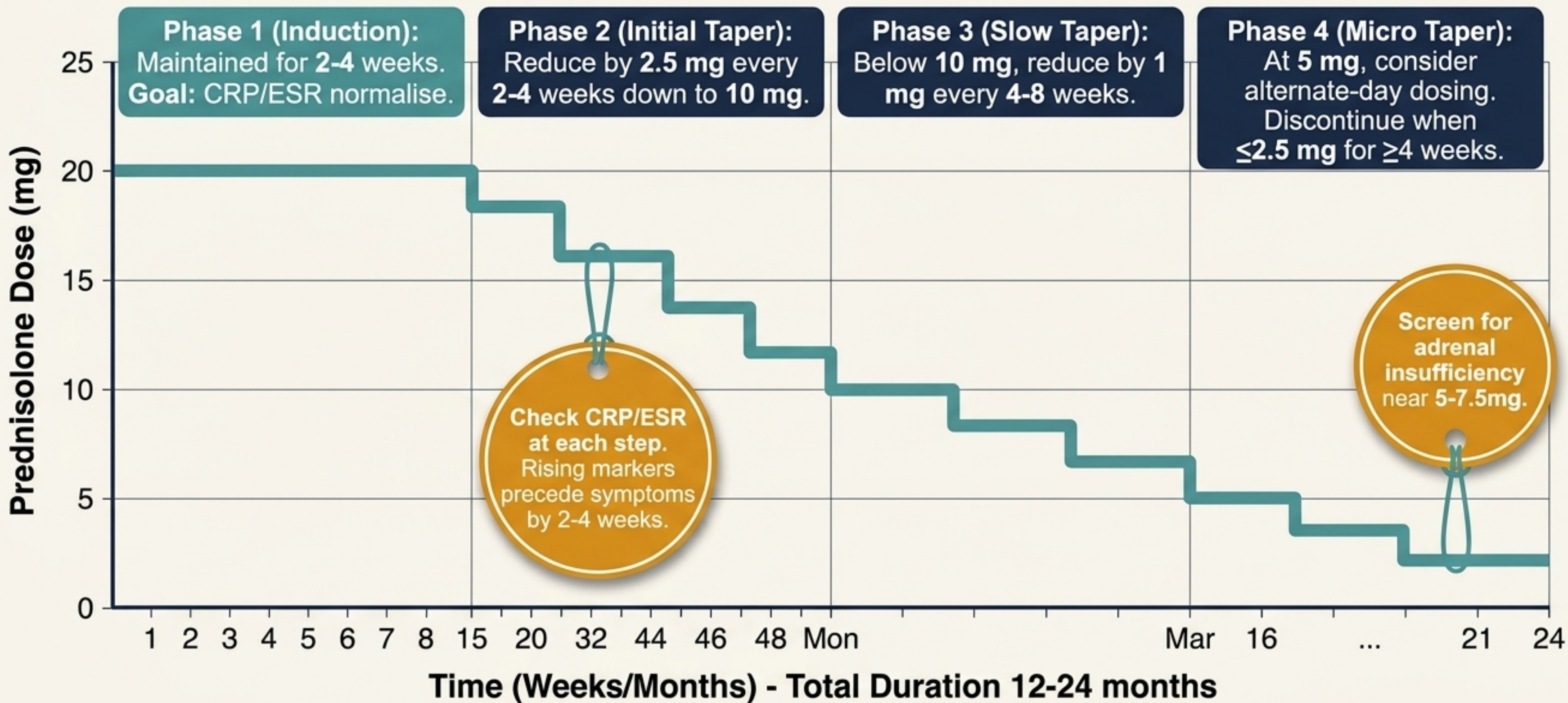
Implications: Taper is significantly slower (minimum 12-24 months).

Risk: High risk of subclinical vasculitis flare on taper.



**Bone Protection
Required for Both Paths**

The Tapering Staircase: Prednisolone Tapering Protocol



Mitigating Collateral Damage: Required Monitoring Protocols

Musculoskeletal

Osteoporosis, avascular necrosis, proximal myopathy.

Action: DEXA annually; FRAX score.

Metabolic

Diabetes, weight gain, dyslipidaemia.

Action: Fasting glucose baseline, HbA1c 3-monthly.

Ophthalmological

Posterior subcapsular cataracts, glaucoma.

Action: Annual review if >7.5mg for >6 months.

Cardiovascular

Hypertension, fluid retention.

Action: BP check at every visit.

Infectious

Reactivation of latent TB, increased infection risk.

Action: Consider IGRA at baseline.

Psychiatric & Derm

Insomnia, mood changes, skin fragility.

Action: Clinical enquiry at each visit.

RULE: Bone protection is MANDATORY for all patients on prednisolone $\geq 7.5\text{mg}$ for ≥ 3 months. Do not cease until steroids stop and T-score > -2.5 .

Assessment

- **FRAX[®] score** at baseline.
- **DEXA scan** (MBS item 12310).

Note: Patients ≥ 70 or with prior fracture are automatically high-risk.

Universal Prophylaxis - All Patients

Calcium (500–1000 mg) + **Vitamin D3** (800–1000 IU) daily (OTC).

PLUS: Alendronate 70 mg weekly **OR Risedronate** 35 mg weekly (PBS General Benefit).

Contraindicated if eGFR < 30 .

High-Risk Alternatives

Zoledronic acid (5 mg IV yearly).

Denosumab (60 mg SC 6-monthly) - usable in renal impairment.

Managing Clinical Worsening: Relapse vs. Atypical Presentation

Patient Symptoms Worsen or Markers Rise
(Occurs in 50-60% of patients, usually below 7.5mg)

Path A: True Relapse

Confirm: Exclude infection/GCA.

Action 1: Re-escalate prednisolone to last effective dose (**10-15mg**). Expect **48-72h** response.

Action 2 & 3: Re-taper at slower rate (**1mg/month**). Initiate Methotrexate if 2nd relapse.

Re-evaluate Diagnosis

- **Peripheral Arthritis:** Consider Late-Onset RA or **RS3PE** (distal swelling/oedema).
- **Systemic Features / Poor Response:** Consider occult malignancy, myeloma, or statin myopathy.
- **Age <50:** Strongly suspect alternative diagnosis.

When to Initiate: Relapse during taper, ≥ 7.5 mg required for >6 months, or significant steroid toxicity.

Methotrexate (First-Line)

- **Dose:** 7.5–15 mg PO/SC weekly.
- **Adjunct:** Mandatory Folic acid 5 mg weekly (taken 48h later).
- **Kinetics:** 6-12 weeks to effect. Contraindicated eGFR <30 or hepatic disease.
- **Status:** PBS General Benefit. Reduces cumulative steroid dose.

Leflunomide (Alternative)

- **Dose:** 20 mg PO daily (no loading).
- **Use:** When MTX contraindicated/not tolerated.
- **Status:** PBS Restricted Benefit.

Tocilizumab (Emerging)

- **Dose:** 162 mg SC weekly/fortnightly.
- **Status:** PBS Authority Required for GCA (off-label for PMR alone). Rapid CRP normalization.

Not Recommended: NSAIDs alone, TNF inhibitors, Azathioprine.



Pregnancy

PMR is extremely rare.
Prednisolone is safest (Category A).
Methotrexate is heavily: **highly teratogenic** (Category X) — must cease 3 months pre-conception.
Leflunomide requires washout.



The Elderly (≥ 75)

Amplified steroid toxicity.
Start bone protection on Day 1.
Consider lower starting dose (**12.5 mg**) and slower taper.
Avoid NSAIDs due to **renal/GI risk**.
Review polypharmacy.



Renal Impairment

Prednisolone: No dose adjustment (**monitor fluid/K+**).
MTX: Dose reduce if eGFR **30-59**; **avoid if <30**.
Bisphosphonates: Avoid if eGFR **<30** (use **Denosumab**).



Hepatic Impairment & Immunocompromised

Prednisolone preferred over Prednisone (no hepatic conversion).
Avoid MTX in severe liver disease.
Ensure vaccinations (**COVID, Zoster, Pneumococcal**) prior to immunosuppression.

Contextual Care: Aboriginal and Torres Strait Islander Patients

Comorbidity & Diabetes Risk



Higher background rates of diabetes and renal disease amplify steroid toxicity.

Aggressive bone protection required immediately.



Baseline HbA1c and **2-hour postprandial glucose monitoring** are essential.

Coordinate with local GP and Aboriginal health workers.

Access & Medication Logistics



Specialist access is limited in remote areas. Utilize **Telehealth (MBS item 91822)**.



Simplify complex tapers using **Dose Administration Aids (blister packs)**

supported by local ACCHOs.

GCA Screening & Cultural Safety



Maintain rigorous **GCA screening**—delays due to remote access risk **preventable blindness**. Establish **urgent ultrasound pathways via RFDS transfer**.



Engage Indigenous Liaison Officers, respect gender preferences, and use

plain-English RHD Australia resources.

Presentation: >50yo, Bilateral shoulder pain + stiffness.

Workup & Mimics: Check CRP/ESR, RF/ACPA.
Exclude RA, Myeloma, Hypothyroid.

The GCA Pivot:
Headache? Visual changes?
Jaw claudication?

**YES → Stat Prednisolone 50-60mg,
US/Biopsy, refer Rheumatology.**

NO → Confirm PMR (EULAR/ACR).
Induction: Prednisolone 12.5–20 mg/day.
Expect 1-2 week response.

**⚠ MANDATORY: Ca²⁺ + Vit D
+ Alendronate. DEXA scan.**

Taper Loop: ↓2.5 mg q2-4 weeks to 10mg.
Then ↓1 mg q4-8 weeks. Monitor CRP at each step.

Relapse Check: If relapse → ↑ Last effective dose
→ Add **Methotrexate** (10-15mg/wk) → Re-taper slowly.