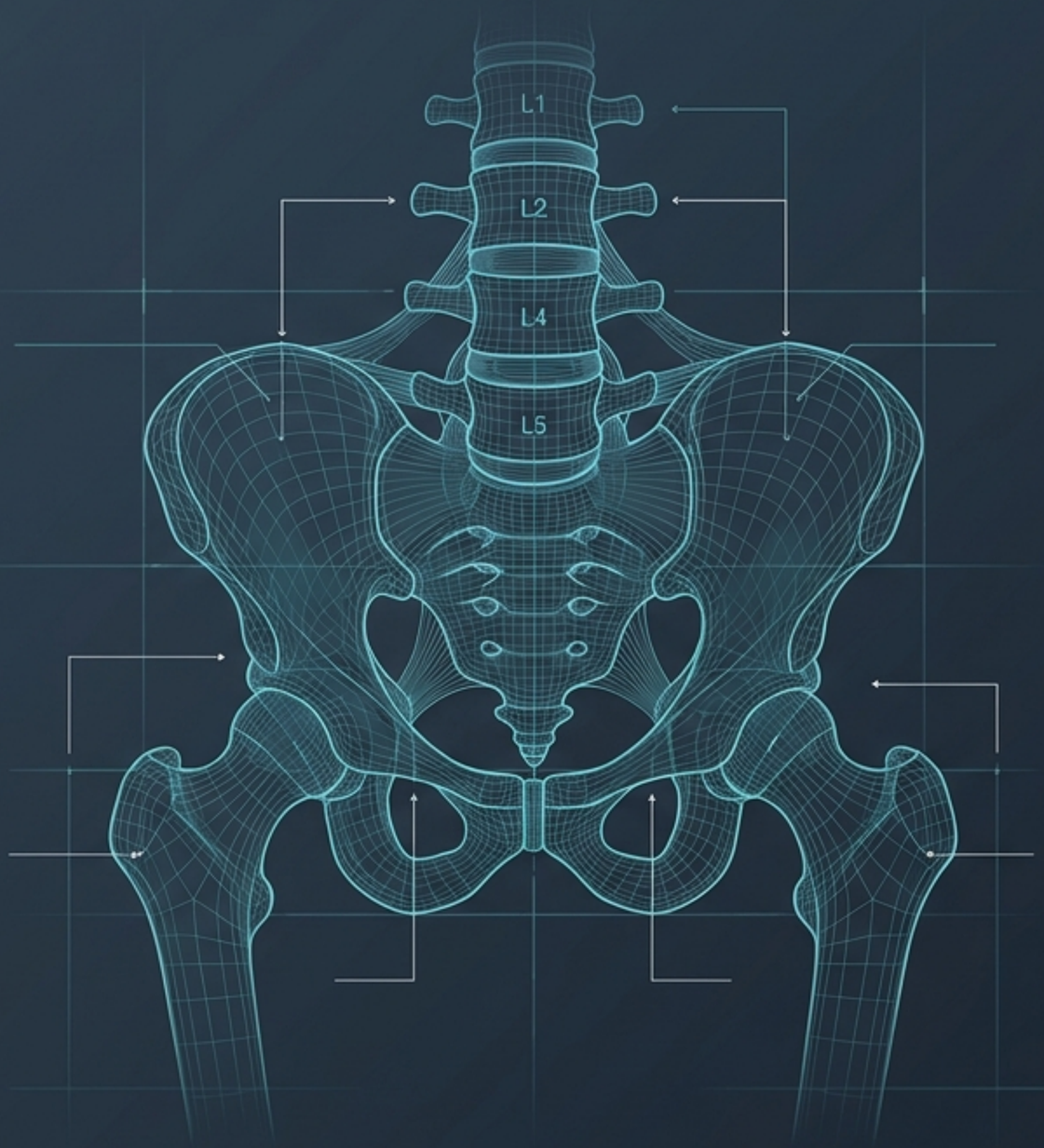
SPONDYLOARTHRITIS:
THE CLINICAL BLUEPRINT

AUSTRALIAN DIAGNOSTIC PATHWAYS AND PHARMACOLOGICAL GUIDELINES



PRESENTATION → INVESTIGATION → DIAGNOSIS → MANAGEMENT

THE 5–7 YEAR DIAGNOSTIC DELAY DRIVES IRREVERSIBLE STRUCTURAL DAMAGE

AVERAGE AUSTRALIAN DIAGNOSTIC DELAY: **5–7 YEARS**

AGE 20–40:
SYMPTOM ONSET

Insidious back pain, morning stiffness

THE HIDDEN PHASE:
BONE MARROW OEDEMA

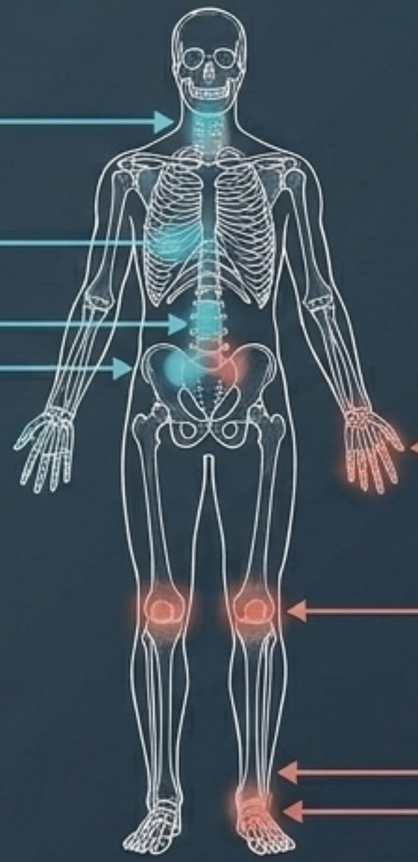
Active inflammation, invisible on standard X-ray

5-7 YEARS POST-ONSET:
IRREVERSIBLE DAMAGE

Sclerosis, erosions, ankylosis

EARLY PATTERN RECOGNITION IS THE ONLY INTERVENTION THAT PREVENTS LONG-TERM DISABILITY

MAPPING THE SPONDYLOARTHRITIS SPECTRUM ACROSS ANATOMICAL SYSTEMS



INFLAMMATORY BACK PAIN

REDUCED SPINAL MOBILITY

ALTERNATING BUTTOCK PAIN

OLIGOARTICULAR ARTHRITIS
(Asymmetric, lower-limb predominant)

ENTHESITIS
(Tendon/ligament insertions)

DACTYLITIS
(Diffuse digit swelling)

SpA encompasses a group of interrelated rheumatic diseases sharing HLA-B27 genetics, presenting axially, peripherally, or concurrently.

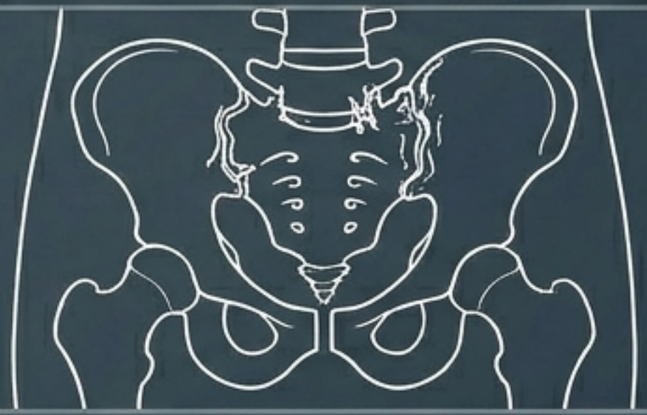
INFLAMMATORY BACK PAIN ACTS DIFFERENTLY THAN MECHANICAL WEAR-AND-TEAR.

INFLAMMATORY BACK PAIN	MECHANICAL BACK PAIN
AGE OF ONSET: **<45 YEARS**	AGE OF ONSET: **VARIABLE**
ONSET SPEED: **INSIDIOUS**	ONSET SPEED: **VARIABLE OR ACUTE**
RESPONSE TO EXERCISE: **IMPROVES SIGNIFICANTLY**	RESPONSE TO EXERCISE: **WORSENS**
RESPONSE TO REST: **NOT RELIEVED**	RESPONSE TO REST: **IMPROVES**
NIGHT PAIN: **OCCURS IN THE SECOND HALF OF THE NIGHT**	NIGHT PAIN: **POSITION DEPENDENT**

ASSESS REDUCED SPINAL MOBILITY VIA SCHOBER'S TEST AND LATERAL FLEXION.

DEFINING THE STRUCTURAL THRESHOLD: RADIOGRAPHIC VS. NON-RADIOGRAPHIC AXIAL SPA.

RADIOGRAPHIC AXIAL SPA (ANKYLOSING SPONDYLITIS)

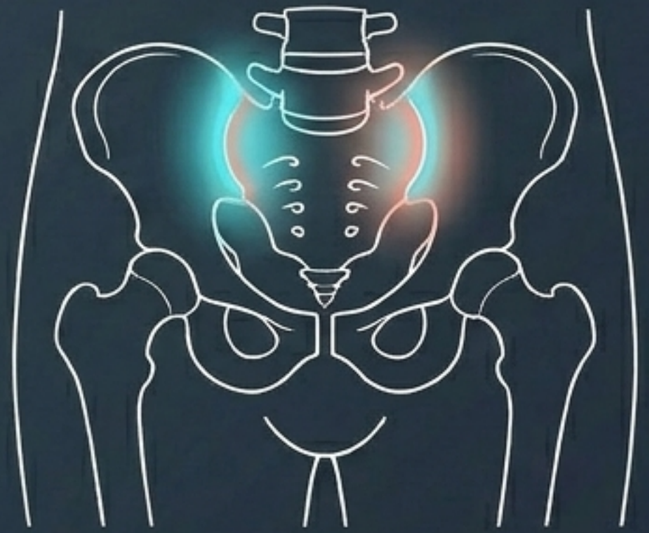


Defining Feature: Definite, visible structural damage.

Imaging Requirement: X-ray showing ≥Grade 2 bilateral OR ≥Grade 3 unilateral sacroiliitis.

Demographic Note: Male predominance.

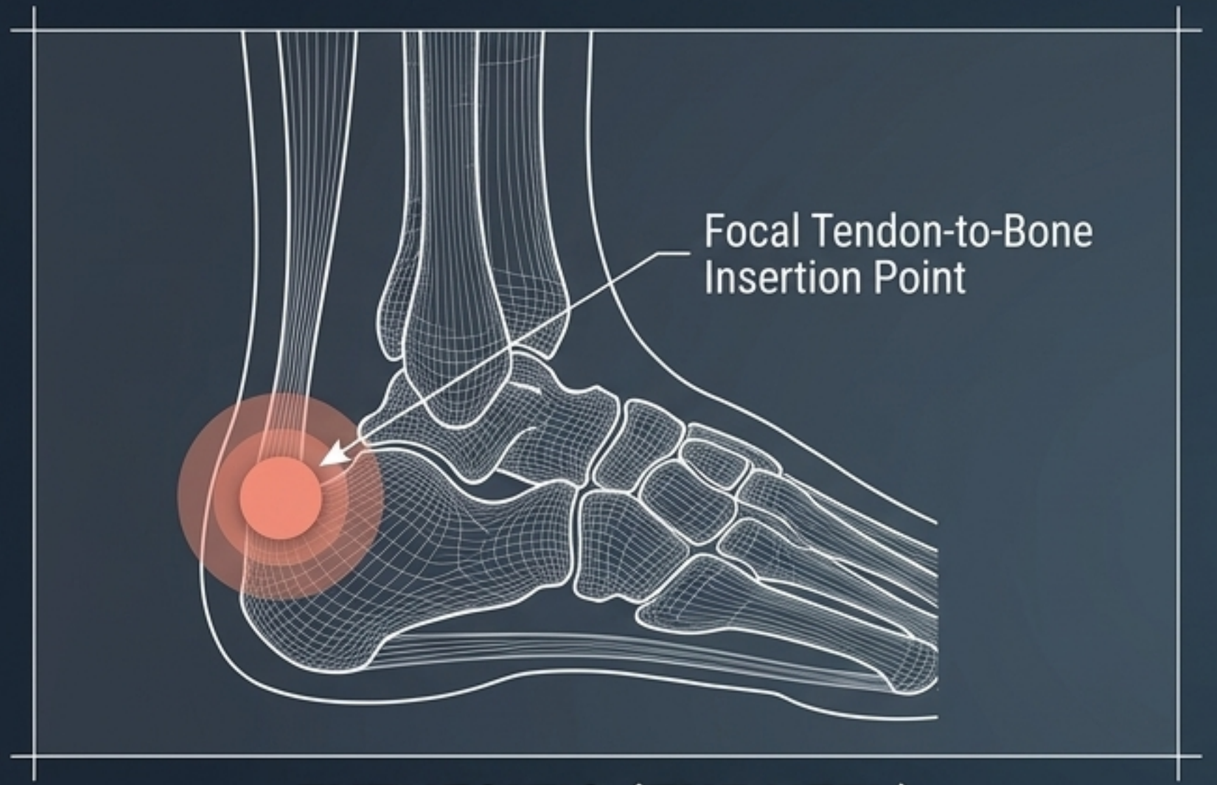
NON-RADIOGRAPHIC AXIAL SPA



Defining Feature: Clinical inflammation without definitive X-ray changes.

Diagnostic Pathway: Inflammatory back pain PLUS sacroiliitis on MRI OR HLA-B27 positivity.

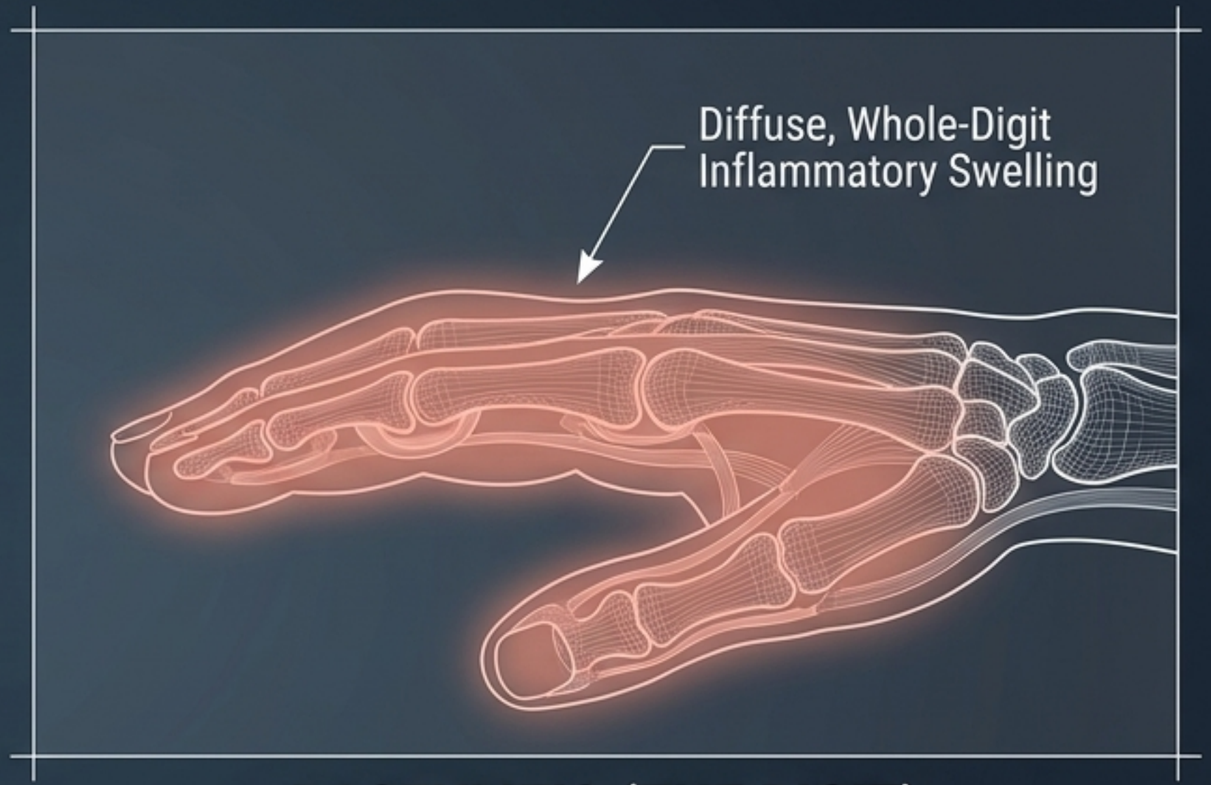
DIFFERENTIATING FOCAL ENTHESITIS FROM DIFFUSE DACTYLITIS



ENTHESITIS (THE HEEL)

Inflammation precisely at the tendon-to-bone insertion point (e.g., Achilles, plantar fascia, lateral epicondyle).

Assessment: Validated via the Leeds Enthesitis Index (LEI).



DACTYLITIS (THE DIGIT)

The “sausage digit.” Diffuse, whole-digit inflammatory swelling.

MANAGEMENT: Local corticosteroid injections for severe focal disease; escalate to systemic therapy (NSAIDs/Biologics, notably IL-17i) for widespread or refractory presentation.

HLA-B27 TESTING IS ONLY DEFINITIVELY USEFUL IN THE INTERMEDIATE PROBABILITY ZONE.

Test when pre-test probability is intermediate:
Chronic back pain + ≥1 SpA feature.

DATA ANCHORS

- **General Population:** 8–10% HLA-B27 positive.
- **Ankylosing Spondylitis Cohort:** ~90% HLA-B27 positive.

CLINICAL RULE

- **Positive result:** Drastically increases likelihood.
- **Negative result:** Effectively rules out axial SpA if pre-test probability was already low.
- **Logistics:** MBS Item 71151 (HLA typing, one locus).

MRI STIR REVEALS EARLY INFLAMMATION YEARS BEFORE STRUCTURAL DAMAGE APPEARS ON X-RAY.

✓ MBS Available

PLAIN RADIOGRAPH (AP PELVIS)

MBS Item: 59502

Target: Detects chronic structural changes.

Key Findings: **Sclerosis, erosions, ankylosis.**

✓ MBS Available

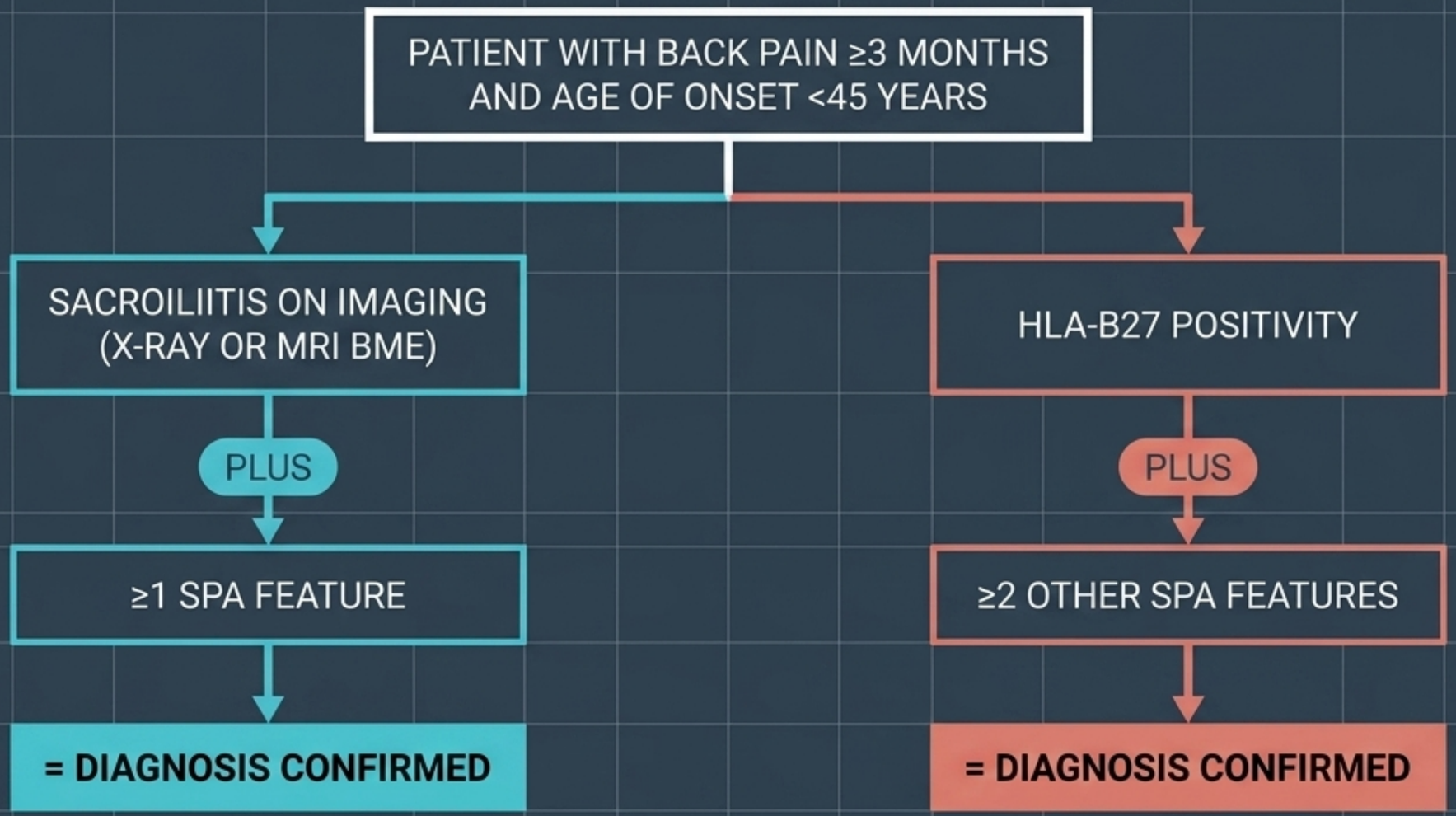
MRI SACROILIAC JOINTS (STIR SEQUENCE)

MBS Item: 63053

Target: The **gold standard** for early inflammatory sacroiliitis.

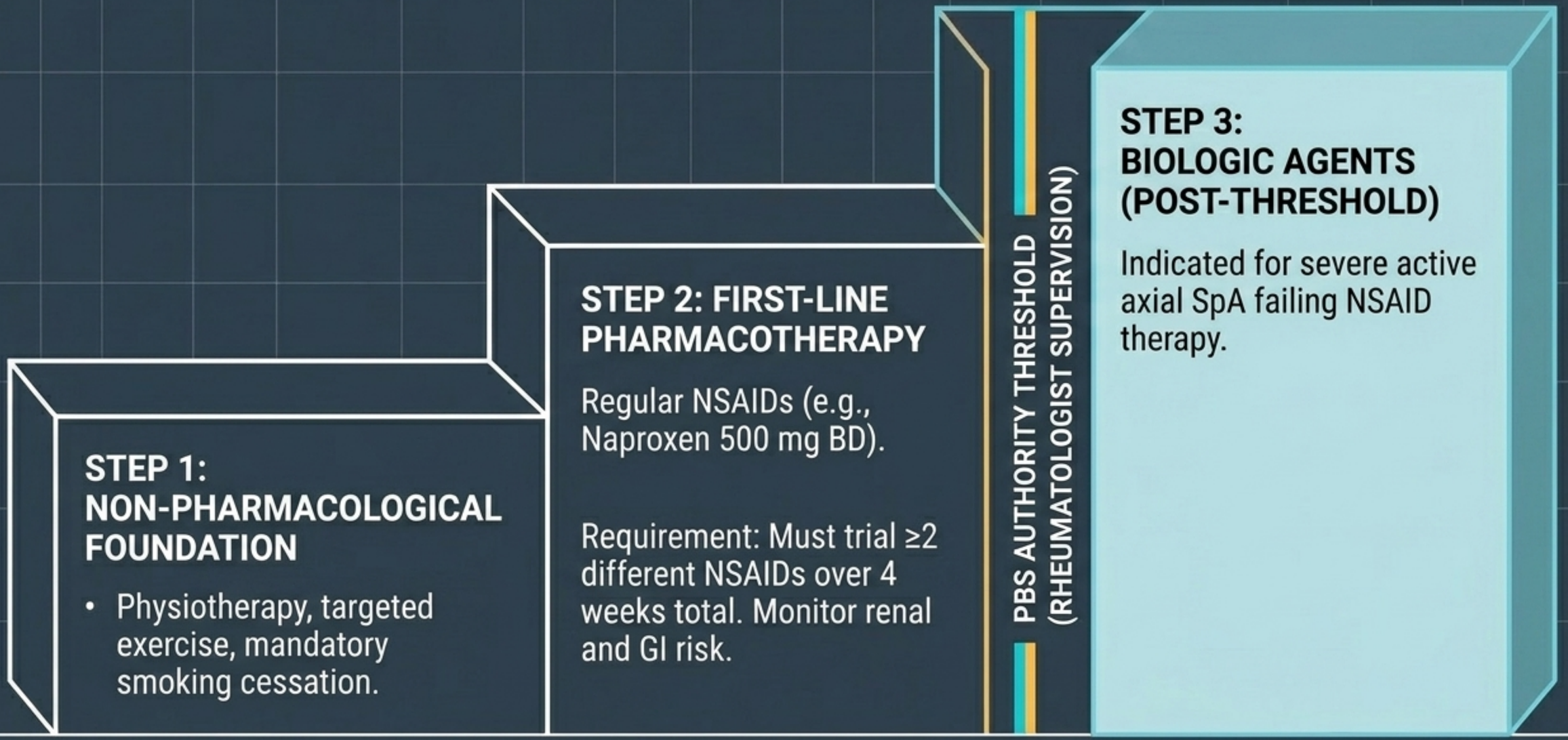
Key Findings: **Active bone marrow oedema (BME).**

THE ASAS CLASSIFICATION ALGORITHM FOR AXIAL SPONDYLOARTHRITIS



This algorithmic framework standardizes clinical diagnosis across all care settings.

ESCALATING CARE ACROSS THE PBS AUTHORITY THRESHOLD.

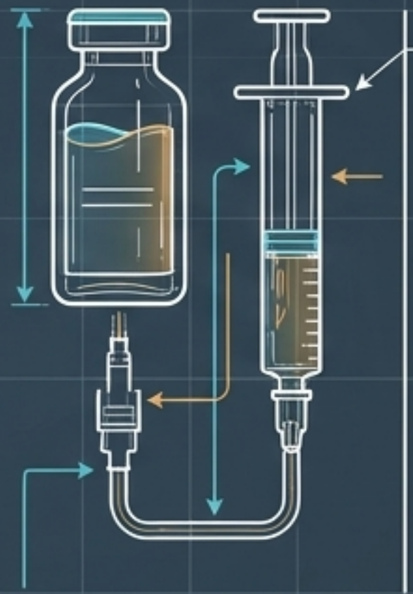


SELECTING AND SCREENING FOR TARGETED BIOLOGIC THERAPIES.

ADALIMUMAB (HUMIRA®)

Class: TNF inhibitor (First-line biologic)

Dosing: 40 mg SC every 14 days



SECUKINUMAB (COSENTYX®)

Class: IL-17A inhibitor (Alternative first-line, or second-line if TNF-i fails. High efficacy for enthesitis).

Dosing: 150 mg SC every 4 weeks (after loading)

MANDATORY PRE-SCREENING PROTOCOL

- Must screen for latent TB (IGRA/TST) and Hepatitis B/C prior to initiation.
- Live vaccines are strictly contraindicated during therapy.

ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH: ADDRESSING DISTINCT BURDENS AND BARRIERS.

EPIDEMIOLOGY & PRESENTATION

Higher prevalence of HLA-B27 and ankylosing spondylitis in some communities. Disease often presents earlier and more severely.

SYSTEMIC ACCESS BARRIERS

Geographic remoteness, specialist shortages, and systemic racism drive higher rates of delayed diagnosis.

CULTURALLY SAFE MANAGEMENT

- Partner with Aboriginal Community Controlled Health Services (ACCHOs) and Indigenous health workers.
- Utilize telehealth for specialist consults.

⚠ **CLINICAL NOTE:** Closely monitor NSAID/DMARD safety due to higher background rates of cardiovascular, diabetes, and renal comorbidities.

PRESERVING STRUCTURAL INTEGRITY RELIES **ENTIRELY** ON **EARLY** PATTERN RECOGNITION

CLOSING THE 5–7 YEAR DIAGNOSTIC GAP PREVENTS IRREVERSIBLE DISABILITY