### **Supplementary Data**

## Australian Consensus Statements for the assessment and management of Non-Radiographic Axial Spondyloarthritis

Corresponding Author: SL Truong s.truong@griffith.edu.au

#### **Author Details:**

Steven L. Truong School of Medicine and Dentistry, Griffith University, Brisbane, QLD, Australia

Steven L. Truong Coast Joint Care, Maroochydore, QLD, Australia

Tim McEwan School of Clinical Medicine, University of Queensland, Herston Rd, Herston, QLD 4006, Australia

Paul Bird St George Hospital Clinical school University of New South Wales Sydney, Australia

Irwin Lim BJC Health, Sydney, NSW, Australia

Nivene F Saad Radiologist, Princess Alexandra Hospital, Metro South Hospital and Health Service, Queensland, Australia

Nivene F Saad Senior lecturer School of Medicine, University of Queensland, Australia

Lionel Schachna Department of Rheumatology, Austin Health, Heidelberg, Victoria, Australia

Lionel Schachna Department of Medicine, University of Melbourne, Parkville, Victoria, Australia

Andrew L Taylor
Department of Rheumatology, Fiona Stanley Hospital
Medical School, University of Western Australia
Perth, Australia

Philip C. Robinson Royal Brisbane and Women's Hospital, Metro North Hospital and Health Service, Brisbane, QLD, Australia

Philip C. Robinson School of Clinical Medicine, University of Queensland, Royal Brisbane and Women's Hospital, Bowen Bridge Road, Herston, QLD 4006, Australia

# S1. MEDLINE Search terms based on 2014 Consensus Statements

The patient's views, preferences and goals are central and care should be a partnership between the clinical team and the patient

("axial spondylo\*" AND (patient-centered OR (patient centered) OR preferences OR goals) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

#### Patient education is a key part of the management of nr-axSpA

("axial spondylo\*" AND ((patient education) OR education OR understanding OR knowledge OR "shared decision making" OR perception OR beliefs) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

## A comprehensive history and physical examination should be carried out for the assessment of suspected nr-axSpA

("axial spondylo\*" AND (history OR examination OR "clinical assessment" OR "clinical diagnosis" or "clinical features" <u>OR</u> diagnos\*[TI]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])) AND (("2013/09/01"[Date - Publication]): "2020/11/01"[Date - Publication]))

# CRP should be measured when considering the diagnosis of nr-axSpA; high sensitivity CRP does not add value to normal CRP

("axial spondylo\*" AND ((ESR OR "erythrocyte sedimentation rate" OR C-reactive protein OR CRP OR "inflammatory marker" OR "inflammatory biomarker") AND diagnos\*[TIAB]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

## HLA-B27 status should be determined when considering the diagnosis of nr-axSpA

("axial spondylo\*" AND ((HLA-B27 OR B27) AND diagnos\*[TIAB]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

Plain pelvic radiographs may be useful to distinguish non-inflammatory and inflammatory causes of back pain; a normal radiograph does not exclude nr-axSpA

("axial spondylo\*" OR "inflammatory back pain") AND (x-ray or radiograph\*) AND diagnos\* NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

Sacroiliiac joint MRI should be used in those with clinical suspicion of nr-axSpA.

T1 and STIR without gadolinium is the recommended protocol

("axial spondylo\*" OR "inflammatory back pain") AND (MRI or "Magnetic Resonance Imaging") NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

Computed tomography is not recommended for the investigation of suspected nr-axSpA

("axial spondylo\*" OR "inflammatory back pain") AND (CT or "Computer Tomography") NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication]): "2020/11/01"[Date - Publication]))

Classification criteria have value in the diagnosis of nr-axSpA, but classification criteria sets should not be used to include or exclude this diagnosis in individual patients

("axial spondylo\*") AND ("classification criteria" OR "diagnostic criteria") NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication]): "2020/11/01"[Date - Publication]))

(axial spondylo\*) AND classification AND (diagnos\*)

#### Physiotherapy may be useful in the management of nr-axSpA

("axial spondylo\*") AND (physiotherapy OR "physical therapy") NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

There is no role for DMARDs in the management of axial manifestations in nr-axSpA. Sulphasalazine can be considered for those with peripheral manifestations in nr-axSpA

("axial spondylo\*") AND (Sulfasalazine OR DMARD OR "Disease Modifying Anti-Rheumatic Drugs") NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

Non-steroidal anti-inflammatories are recommended as first-line pharmacological treatment for the management of nr-axSpA

("axial spondylo\*") AND (NSAID or "Non-steroidal anti-inflammatories" OR "Non-steroidal anti-inflammatory" OR NSAIDs) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication]): "2020/11/01"[Date - Publication]))

TNF inhibitors are useful in the management of nr-axSpA

("axial spondylo\*") AND ( (TNF inhibitor) OR (Tumor Necrosis Factor inhibitor) OR (Tumor Necrosis Factor alpha inhibitor) OR adalimumab OR certolizumab OR infliximab OR etanercept OR golimumab) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

#### Glucocorticoids may have a limited role in NSAID-refractory nr-axSpA.

("axial spondylo\*") AND (Glucocorticoid OR corticosteroid OR steroid OR prednisone or hydrocortisone OR dexamethasone or methylprednisone) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter]) AND (("2013/09/01"[Date - Publication] : "2020/11/01"[Date - Publication]))

### S2. MEDLINE search terms for new topics

What is the range of /typical level of impairment?
What is the impact of nr-Ax SpA on mental health, working, social, domestic and sexual function?
What are the predictors of function/QoL in nr-Ax SpA?

("axial spondylo\*"[All Fields]) AND (ASDAS OR BASDAI OR "quality of life"[MeSH Terms] OR "Mental Health"[MeSH Terms] OR "sexual health"[MeSH Terms] OR "burden of disease" [TIAB] OR "disability"[TIAB] OR "impair\*"[TIAB] OR "function\*"[TIAB] OR "work" OR "sick leave"[TIAB] OR "social"[TIAB] OR "physician global assessment" [TIAB] OR "patient global assessment"[TIAB]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

[no date filter]

How well do people with a mixture of nr-SpA and NSBP symptoms respond to established treatments? *In patients with co-morbid nr-AxSpa and NSBP, how well do patients respond to standard treatments?* 

("axial spondylo\*"[All Fields]) AND ("back pain"[TIAB]) AND ("treatment"[TIAB] OR "response"[TIAB] ) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

[no date filter]

("axial spondylo\*"[All Fields]) AND ("back pain"[TIAB]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

### What are the predictors of response to treatment? eg CRP, MRI, BASDAI, ASDAS

("axial spondylo\*"[All Fields]) AND ("predict\*"[TIAB] OR "determin\*"[TIAB]) AND ("response\*"[TIAB] OR "outcome\*"[TIAB]) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

[no date filter]

Is the one biologic or biologic class recommended over others? Eg TNF vs IL-17

("axial spondylo\*" ) AND ( secukinumab OR ixekizumab or IL-17) NOT (animals [mh] NOT humans [mh]) NOT review[pt] AND (english[Filter])

[no date filter]