

Inflammatory Back Pain

Philip Robinson MBChB PhD FRACP

Associate Professor, University of Queensland

Senior Staff Specialist, Royal Brisbane Hospital

VMO, St Andrew's War Memorial Hospital

Disclosures – Philip Robinson

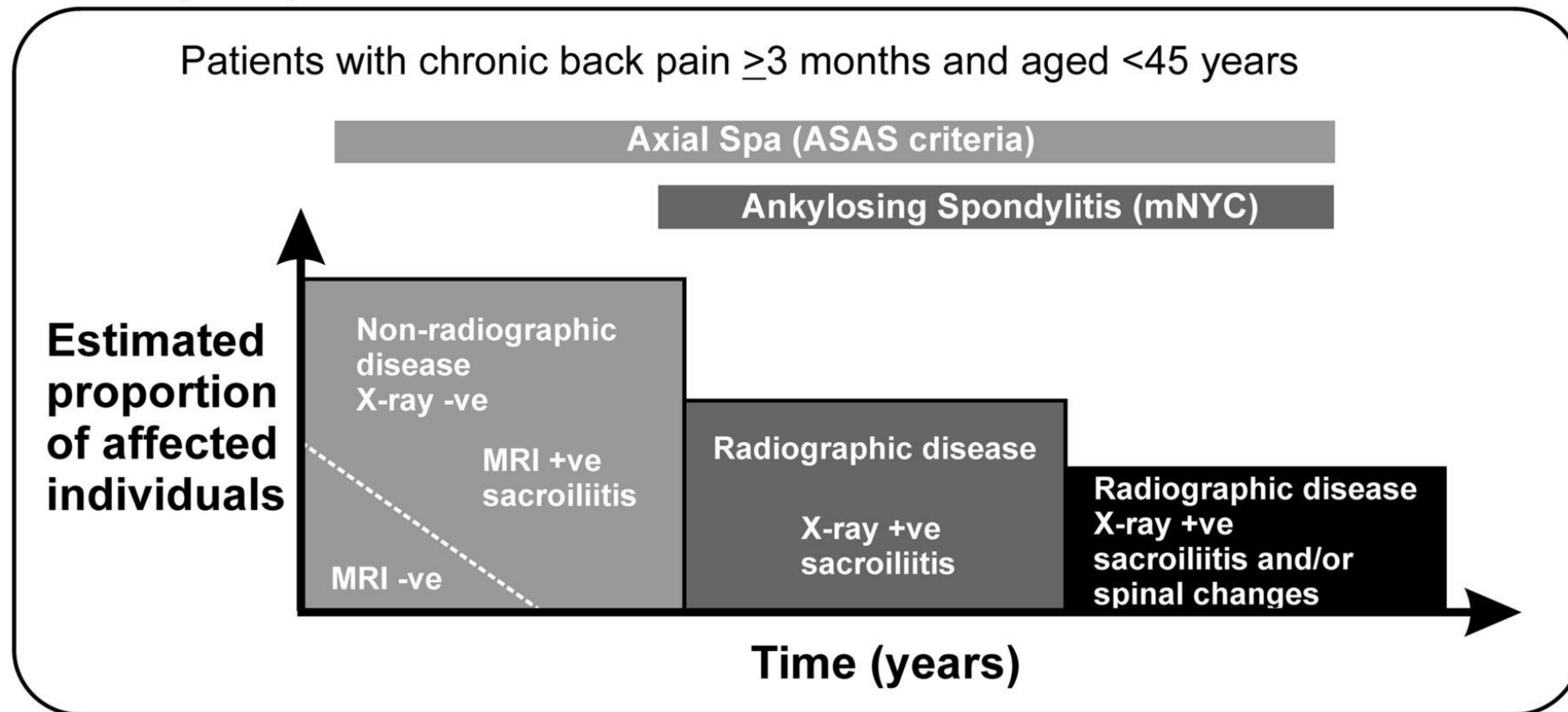
- Consulting, speaking, research funding and/or advisory board engagements in the area of SpA and also in other areas with:
 - Abbvie, Eli Lilly, Janssen, Novartis, Pfizer, Roche, Sanofi and UCB
- Treasurer of the Australian Rheumatology Association Queensland Branch which receives sponsorship from:
 - Abbvie, Amgen, BMS, CSL, Eli Lilly, Janssen, Novartis, Pfizer, Roche, Sanofi and UCB

What is the issue?

- Back pain is very common in the community
- Differentiating back pain caused by **Inflammatory disease** from other **causes of back pain is challenging**
- **Some simple strategies are helpful**

The spectrum of disease in axSpA. The figure depicts the spectrum of disease in patients with axSpA.

Axial SpA spectrum of disease



Isdale A et al. Rheumatology 2013;rheumatology.ket244

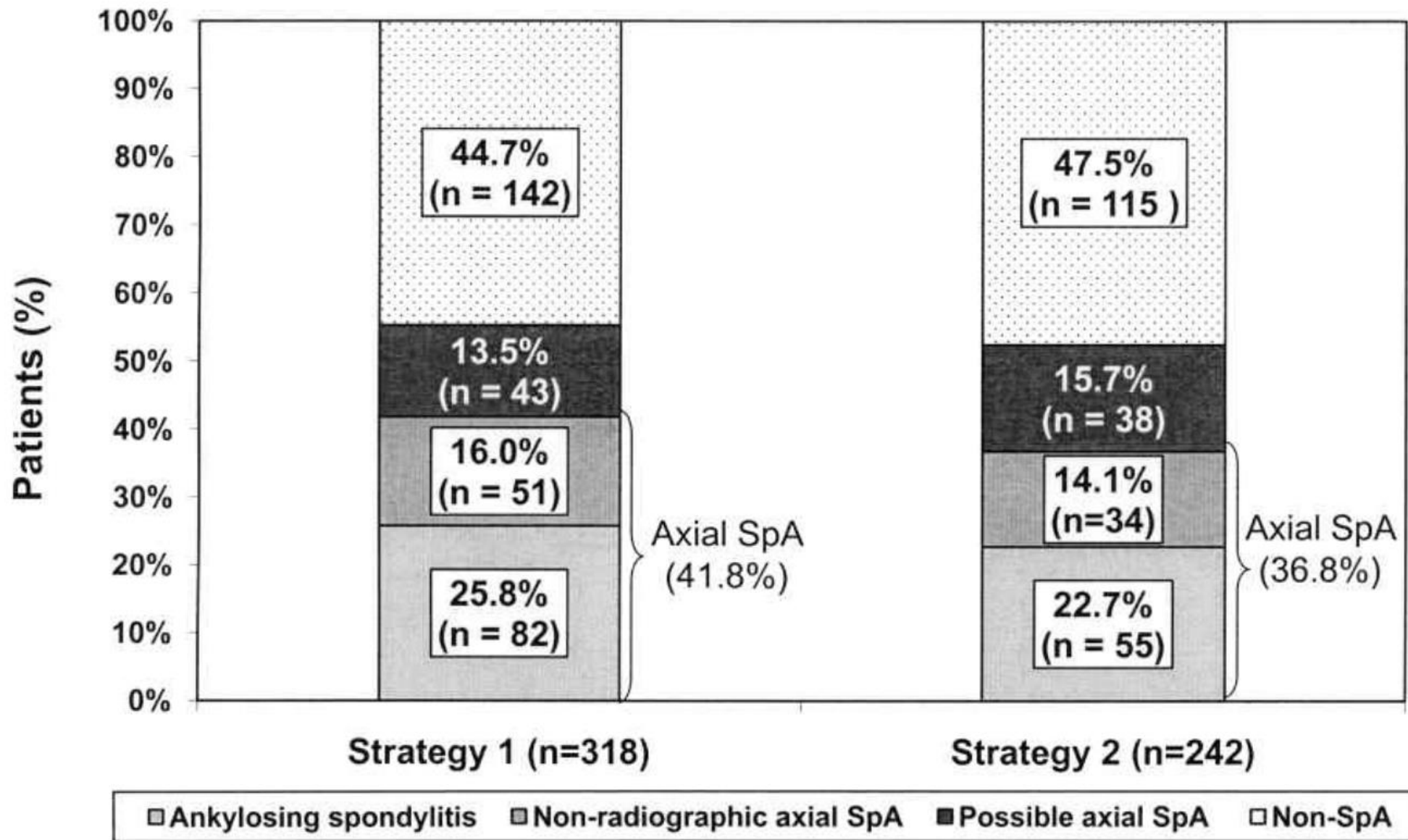
Entry criteria
<ul style="list-style-type: none">• Chronic back pain and symptom duration more than 3 months and• Age of back pain onset < 45 years and• No confirmed diagnosis of AS or axial SpA

plus

Referral Strategy 1
<p><i>at least one of the following:</i></p> <ul style="list-style-type: none">• inflammatory back pain• HLA-B27 positivity• sacroiliitis detected by imaging

OR*

Referral Strategy 2
<p><i>at least two of the following:</i></p> <ul style="list-style-type: none">• inflammatory back pain• HLA-B27 positivity• sacroiliitis detected by imaging• positive family history for AS• good response to NSAID



Entry criteria

- Chronic back pain and symptom duration more than 3 months
and
- Age of back pain onset < 45 years
and
- No confirmed diagnosis of AS or axial SpA

plus

Referral Strategy 1

at least one of the following:

- inflammatory back pain
- HLA-B27 positivity
- sacroiliitis detected by imaging

OR*

Referral Strategy 2

at least two of the following:

- inflammatory back pain
- HLA-B27 positivity
- sacroiliitis detected by imaging
- positive family history for AS
- good response to NSAID

Inflammatory back pain

- Pain in the back
- Better with activity
- Worse with rest
- Often worse in the morning
- Insidious onset
- Often significant improvement with NSAIDs

This type of pain is not specific to axial spondyloarthritis

Using inflammatory back pain as a diagnostic criterion

- Rheumatologist with knowledge of other features
 - Sensitivity 90%
 - Specificity 59%
 - Positive predictive value 64%
 - Negative predictive value 88%
 - Likelihood Ratio + 2.2
 - Likelihood Ratio – 0.2
- Rheumatologist without knowledge of other features
 - Sensitivity 81%
 - Specificity 44%
 - Positive predictive value 54%
 - Negative predictive value 74%
 - Likelihood Ratio + 1.4
 - Likelihood Ratio – 0.4

Using inflammatory back pain as a diagnostic criterion

- Rheumatologist with knowledge of other features
 - Sensitivity 90%
 - Specificity 59%
 - Positive predictive value 64%
 - Negative predictive value 88%
 - Likelihood Ratio + 2.2
 - Likelihood Ratio – 0.2
- Rheumatologist without knowledge of other features
 - Sensitivity 81%
 - Specificity 44%
 - Positive predictive value 54%
 - Negative predictive value 74%
 - Likelihood Ratio + 1.4
 - Likelihood Ratio – 0.4

Other things that aren't that helpful

- HLA-B27
 - Sensitive but not specific
 - ie. people with disease more likely to have it
 - But 8-9% of white Caucasian population have to
- Inflammatory markers
 - **Very** often normal
 - Especially early in disease course

What next?

- Refer
- or image yourself
 - MRI Scan of sacroiliac joints +/- Lumbar spine
 - T1 and STIR sequences
 - No contrast required