

Introduction

Absence of lumbar spine MRI imaging in Spina Bifida (SB) or Spina Bifida Occulta (SBO) may result in neuraxial anaesthesia (NA) being denied due to concerns about a low-lying or tethered spinal cord. It has been suggested that MRI is considered in the presence of urinary symptoms, sensory/motor abnormality, back surgery or pain, limb deformity, midline cutaneous abnormality¹ and that a tethered cord may exist in SB/SBO even without neurological symptoms². Current consensus on when MRI imaging is mandated for milder cases of SB/SBO is lacking.

Methods

Following Trust audit department approval, we conducted a service evaluation. A review of anaesthetic clinic and Trust electronic record data (2008 to 2022) identified 41 pregnant women with SB/SBO. We reviewed

- history
- symptoms/signs
- previous MRI imaging
- offer of MRI during pregnancy
- type of analgesia/anaesthesia offered/used.

Results

Imaging Findings and Clinical Decisions (21 MRIs)

4=Abnormal Spinal Cord on MRI (Previous spinal surgery for SB)

1= lower-lying spinal cord (but normal variant) associated with *lower lumbar hairy naevus on Clinical Exam*

9= MRIs showed SBO at L5/S1 without cord abnormality*

7= normal*

(*Clinical findings = included non-specific symptoms related to back, lower limbs, bladder)

2 Advised avoid NA

Patients with no Imaging for review

Declined MRI (5)

Clinical Decision not for imaging

Epidural only
=2

Avoid all NA
=1

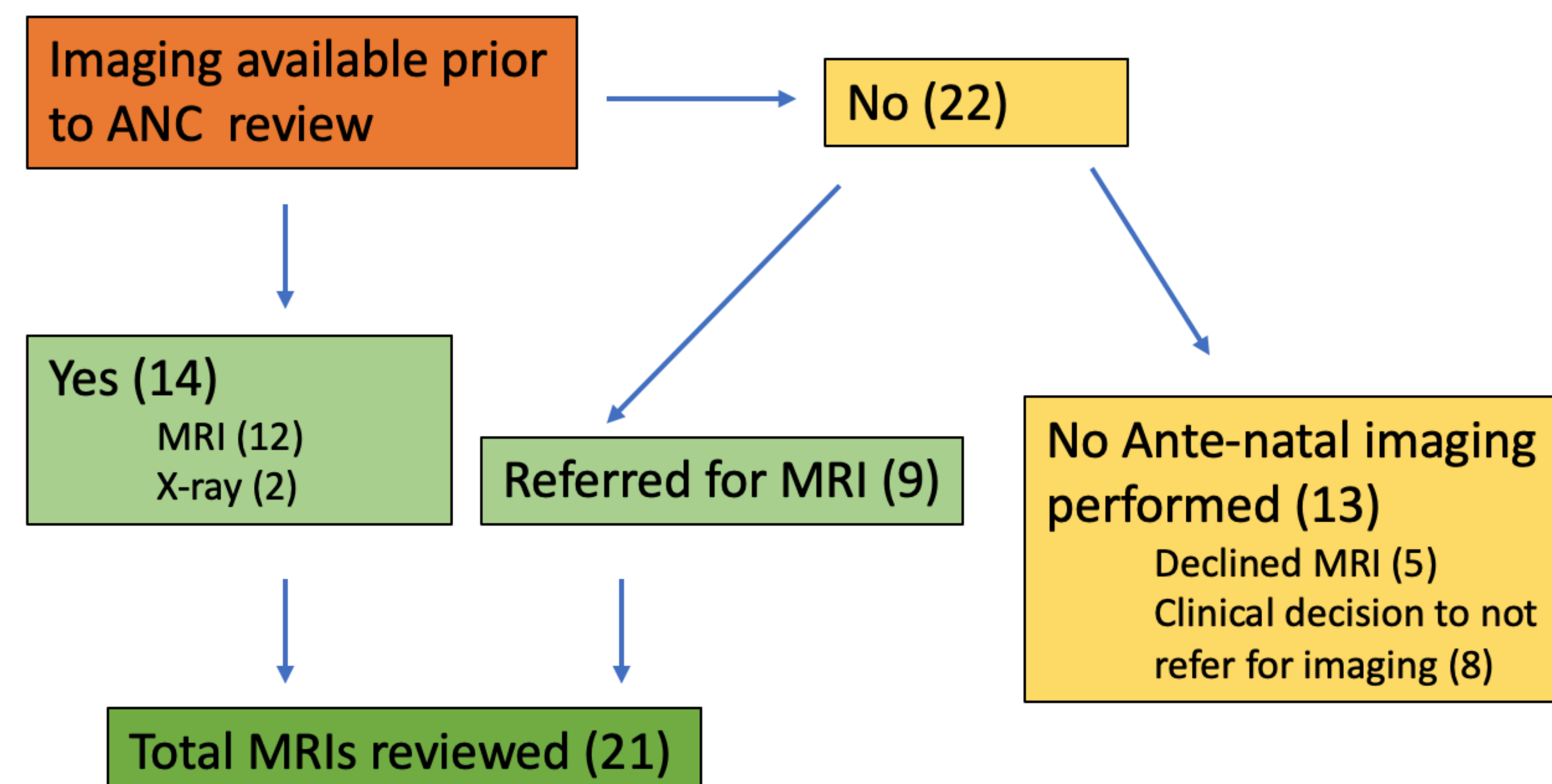
Suitable for All NA
=2

Epidural only
=4

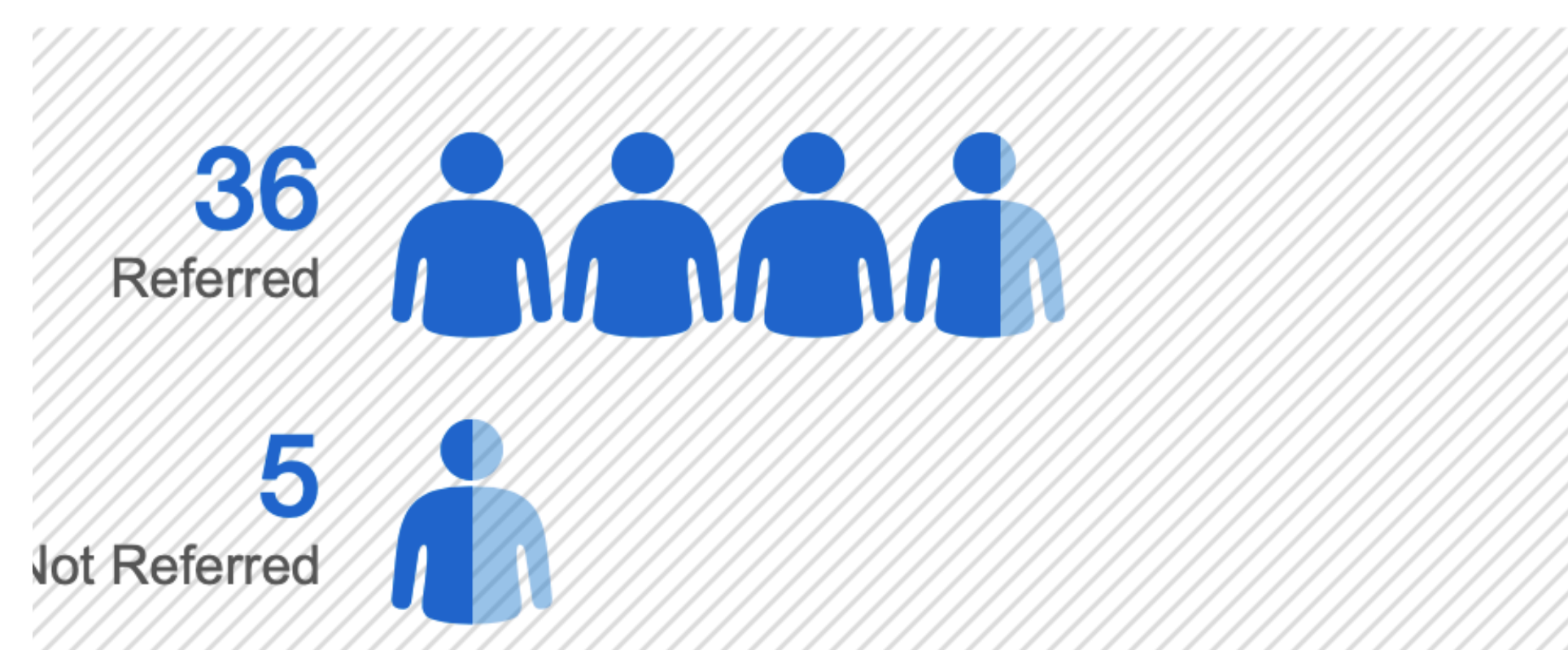
Avoid all NA
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Suitable for All NA
=2

Of Those Referred To ANC:



Referrals to Antenatal Clinic



Conclusion

Despite small numbers, our review highlights the role of the antenatal anaesthetic clinic in allowing a careful individualised review to identify requirement for MRI imaging. Those parturients that were not reviewed in the antenatal clinic were not offered regional anaesthesia. Only 4 abnormal cords were found in the MRI imaging and these were all related to previous surgery for SB. Previous surgery for SB does not rule out epidural or spinal anaesthesia, but up to date MRI imaging is required alongside antenatal anaesthetic review and risk discussion in advance of delivery. Careful review of history and examination in advance of delivery is required for symptoms and signs to identify whether MRI imaging should be offered in pregnancy. Anaesthetic plans should be individualised.

References:

1. Spinal dysraphism in the parturient: implications for perioperative anaesthetic care and labour analgesia. Murphy CJ et al. IJOA 2015;24,252–263.
2. UK registry of high risk obstetric anaesthesia: report on neurological disease. May AE et al. IJOA 2008;17,31–36.