

Early Onset Scoliosis Casting

A Survey of Orthopedic Surgeon Practices

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Background

Tremendous variability in casting practices

Purpose:

- Understand current patterns
- Springboard for future studies

Study Questions

Patient Selection

- When to initiate?

Casting technique

- Radiographs?

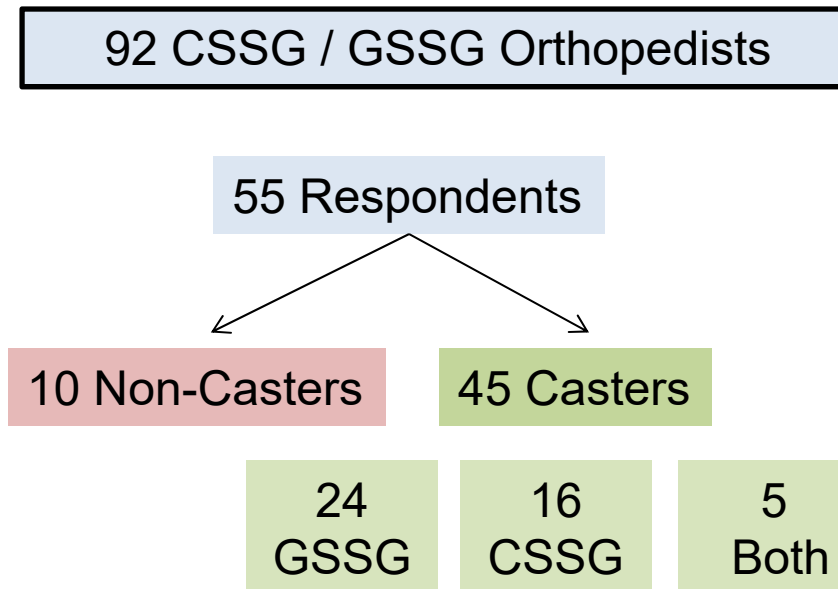
Cast Treatment

- Bracing in conjunction?
- When to stop?

Methods

42 Questions

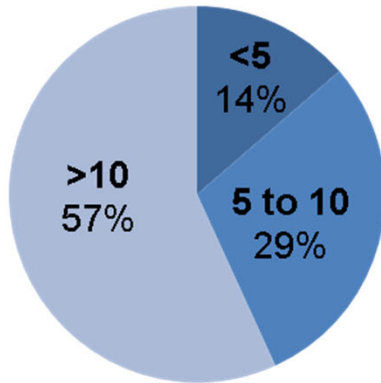
9 Sections, 5 Cast Specific



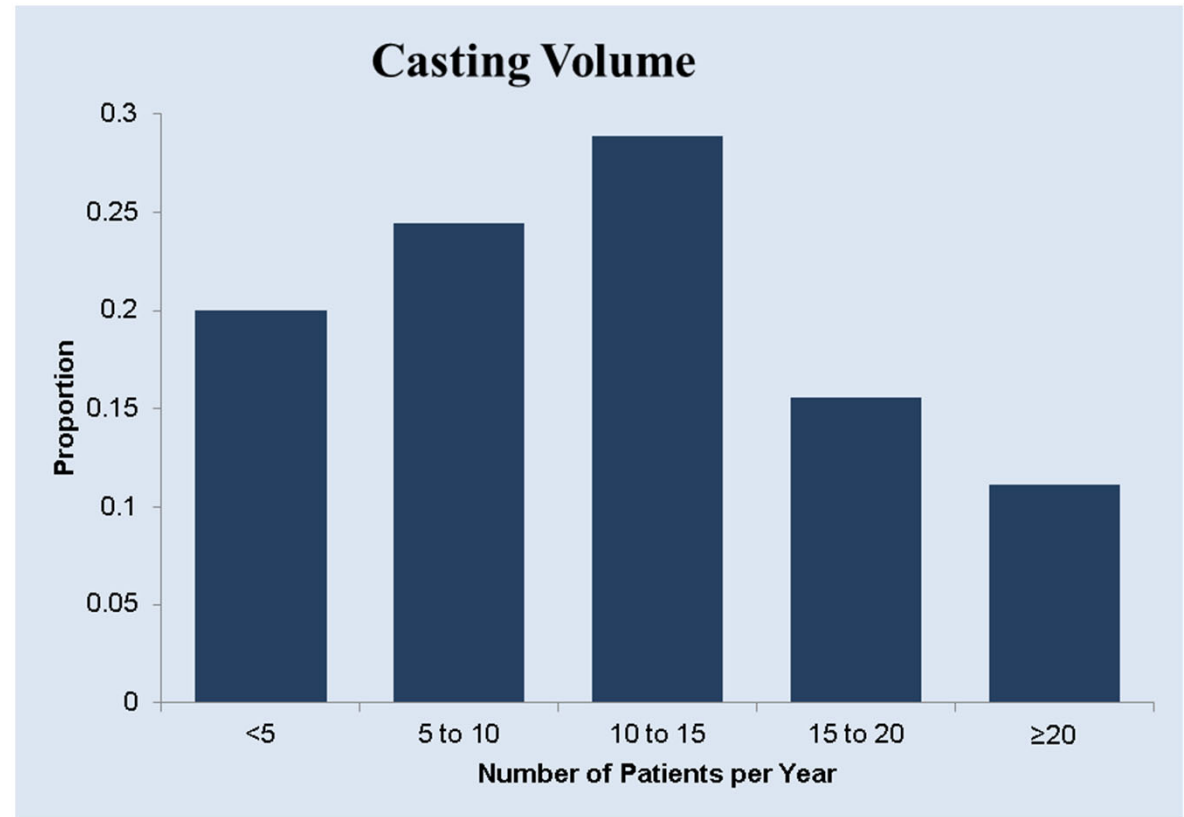
60% Response Rate

Casting Surgeon Characteristics

Years in Practice



Casting Volume



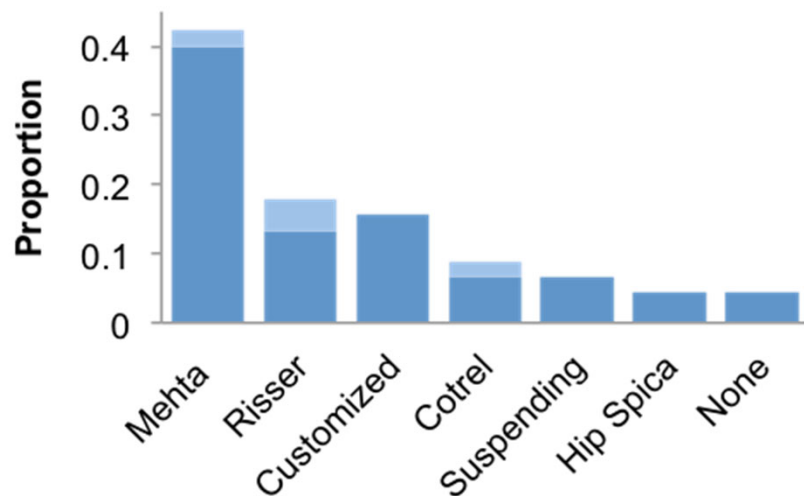
Cast Technique

Style

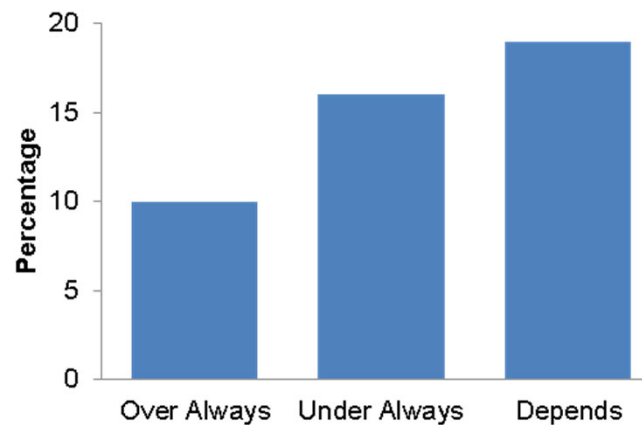
76% Mehta, 16% Risser, 8% Other

30% use straps

Casting Table



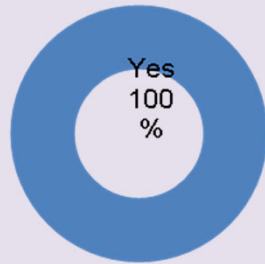
Shoulder Position



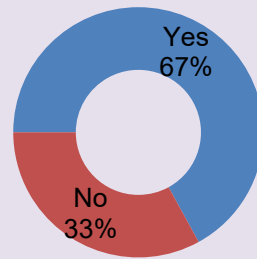
Radiographic Practices

Pre-Cast X-Rays

PA / AP



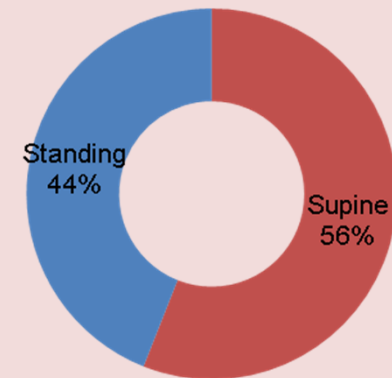
Lateral



Flexibility

17% Traction
6% Bending

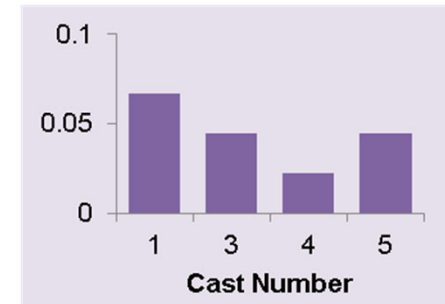
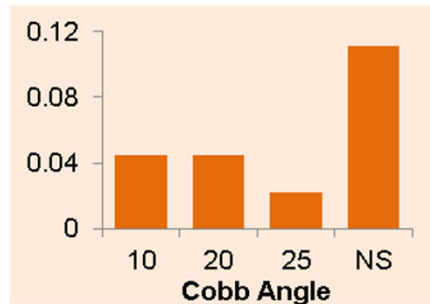
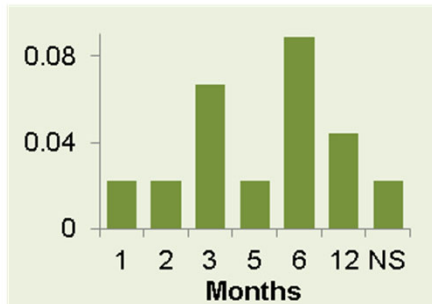
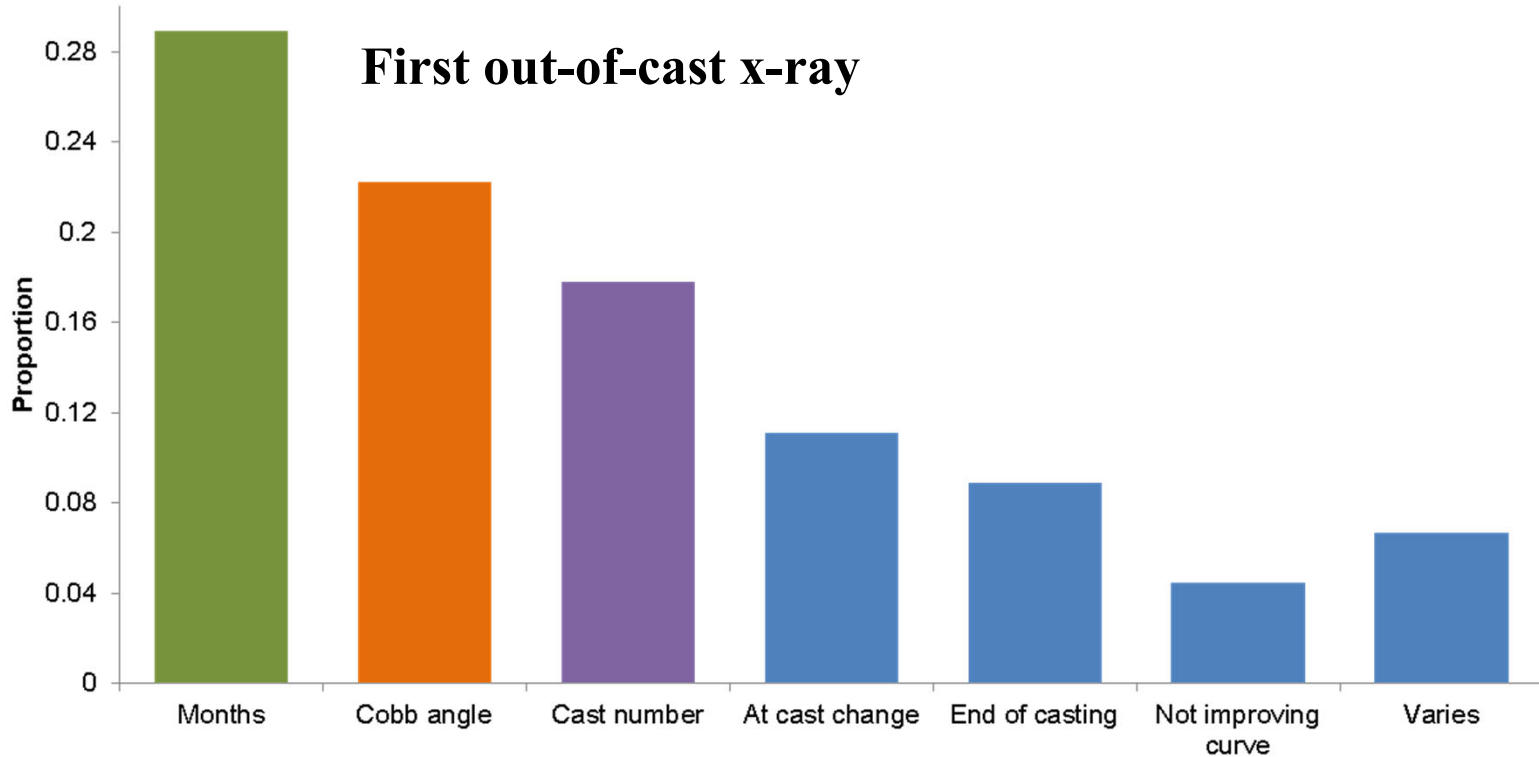
First In-Cast X-Ray



Supine

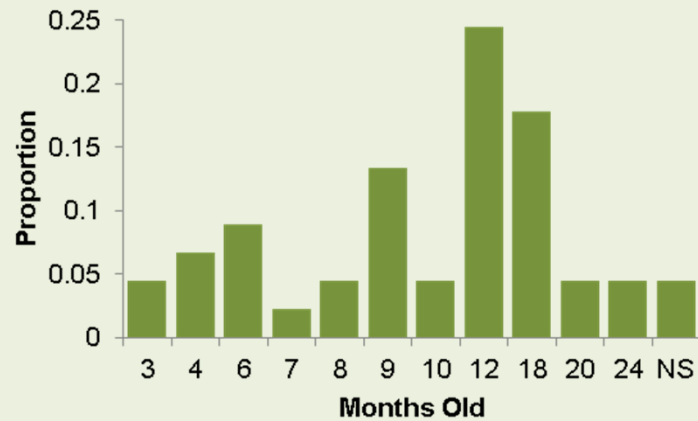
52% Asleep, 8% Awake
16% Out of Traction,
8% In Traction

Radiographic Practices

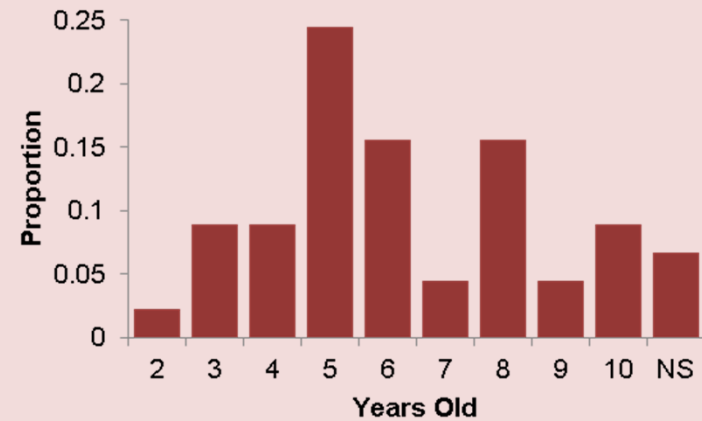


Patient Characteristics

Earliest Casting Age (Months)

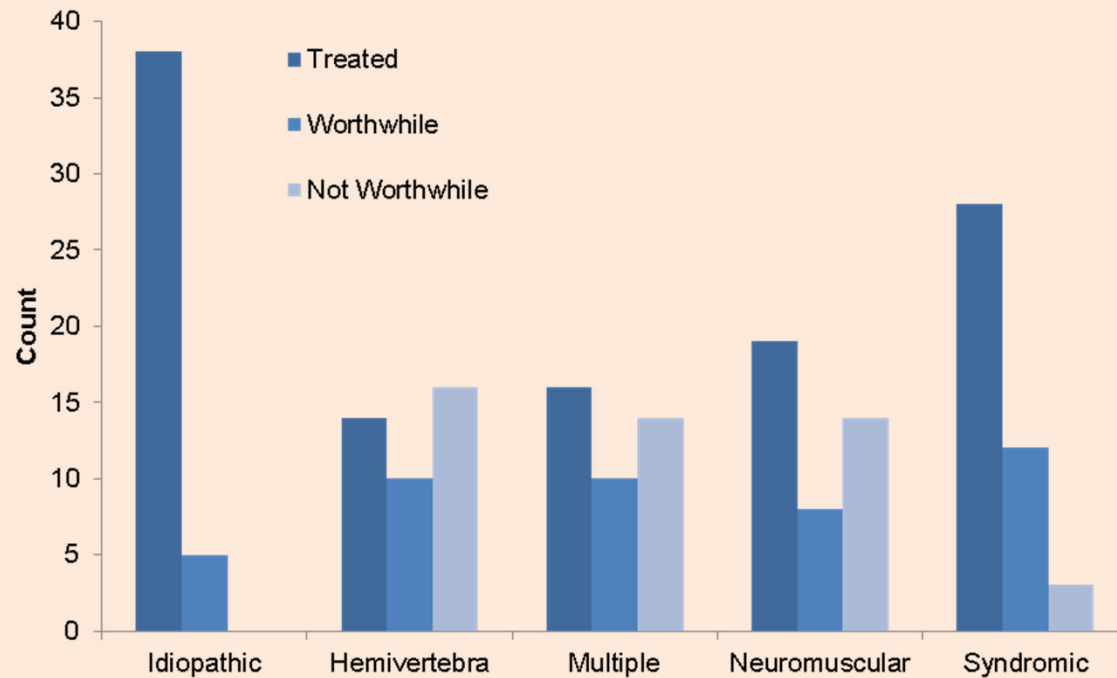


Latest Casting Age (Years)



Patient Characteristics

Scoliosis Etiology



Cast Initiation

Decision Making Factors

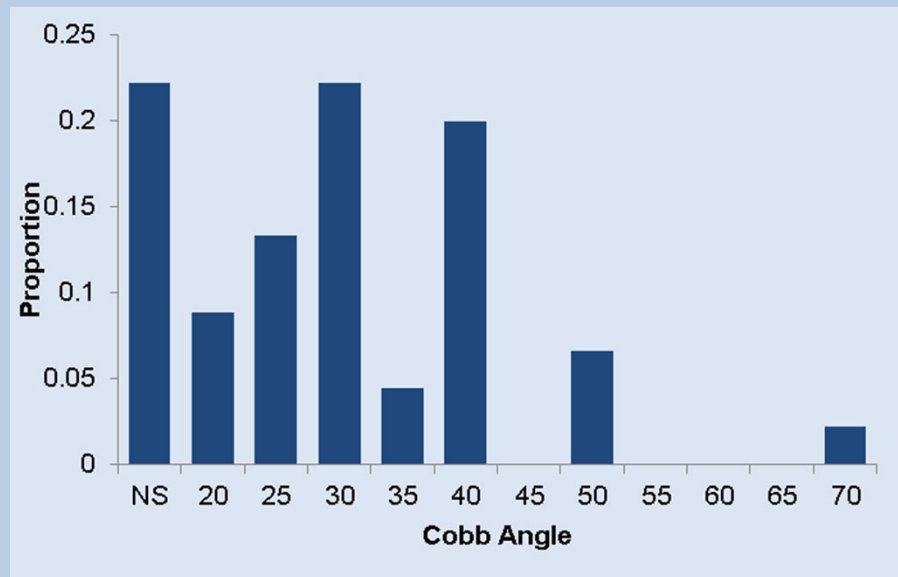
- Cobb
- RVAD
- Clinical observations

25% go by **radiographic** criteria

50% use **clinical observations** in conjunction with radiographic findings

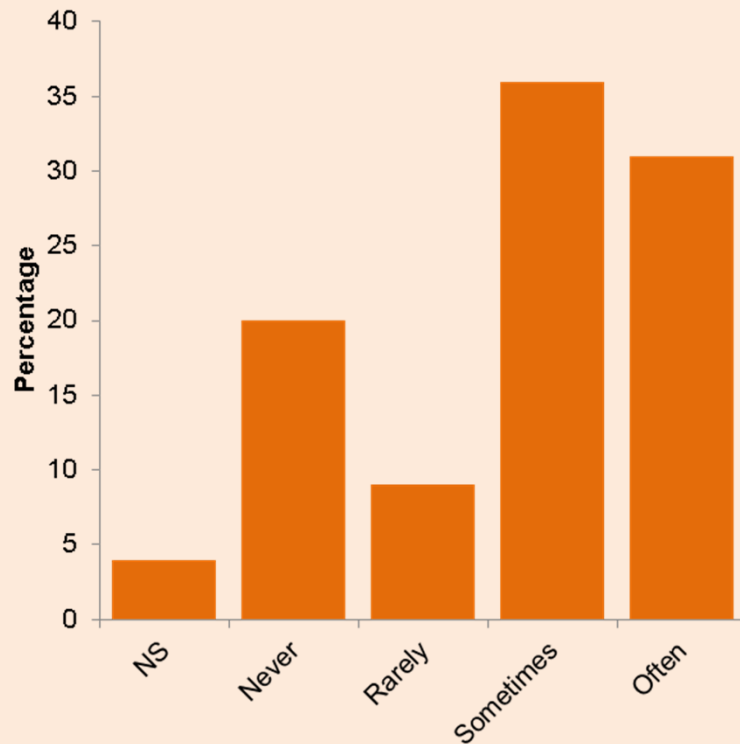
39% ranked **Cobb** most important

Minimum Cobb Angle to Initiate Cast Treatment

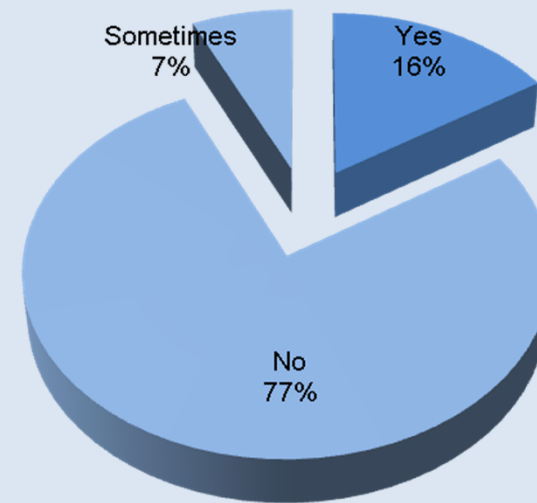


Summertime Treatment

Summer Bracing Frequency

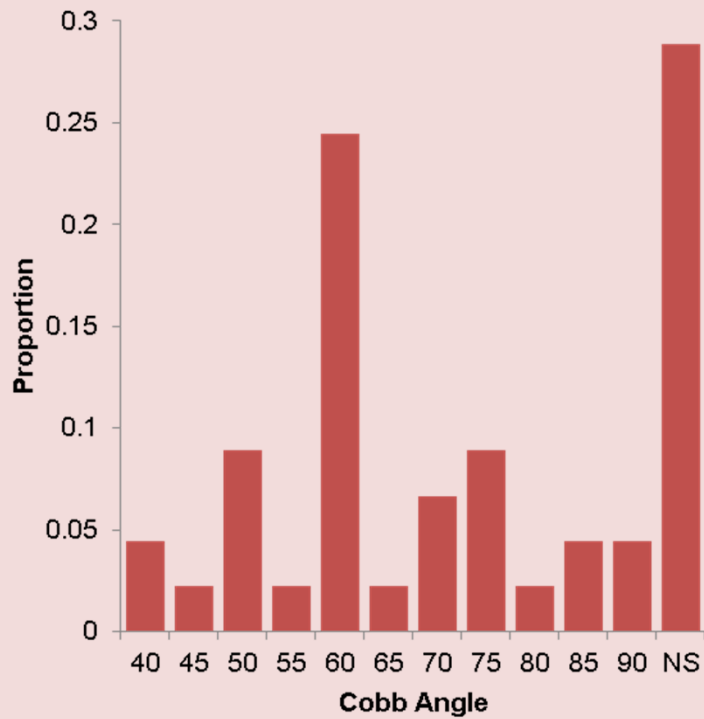


Waterproof Casting

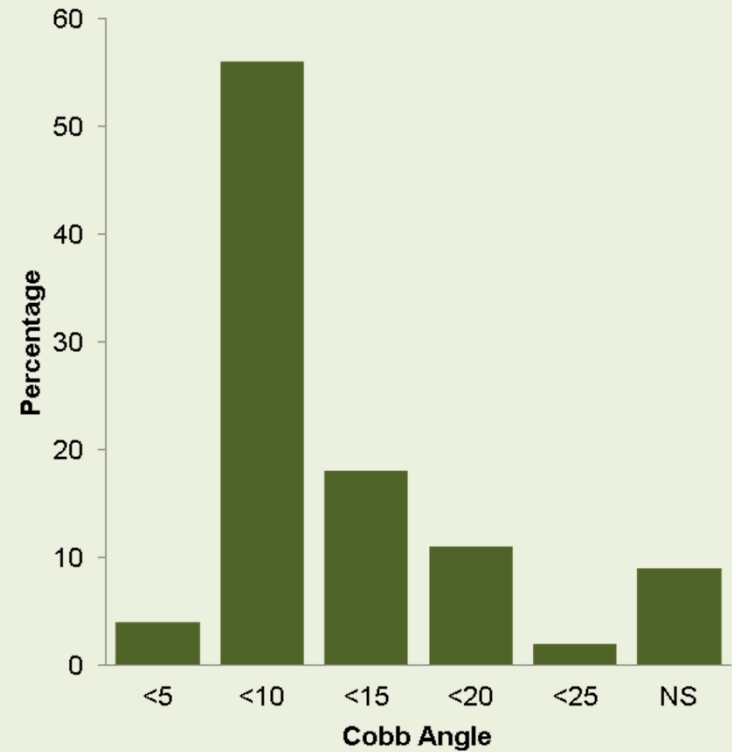


Ending Cast Treatment

Abandonment Threshold



Cure Threshold



Limitations

Sample

Cure v. delay

Variation in treatment



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Until every child is well™



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Conclusion

Warranted versus unwarranted variability

Specifying treatment to patient

Next Directions

New Form C

Delphi Method

Prospective studies

Casting in the future



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The Backbone of Orthopedics