INTRODUCTION
Previous studies have shown poor compliance with bracing in patients with AIS. The purpose of this study was to determine if physician counseling using compliance monitors improves brace use and decreases curve progression in AIS.

METHOD
222 patients were prospectively enrolled in this study. All patients were Risser 0, 1, or 2, were less than 1 year postmenarchal, and had curves between 25 and 45° at the time of brace prescription. Patients were placed into 2 groups: Group 1 were aware of the compliance monitor in their brace and were counseled at each visit regarding the downloaded brace usage (n=121). Group 2 were not told the purpose of the monitor in their brace, and physician, orthotist, and patient were blinded to downloaded compliance data (n=101). This report analyzes the comparative data on 160 patients who have completed bracing or had surgery.

RESULTS
88 patients in the counseled and 72 patients in the noncounseled group completed bracing or underwent surgery. Curve magnitude at initiation was 33.1° in the counseled and 34.3° in the noncounseled groups. Patients in the counseled group wore their orthoses an average of 13.6 hrs/day throughout their management, while patients in the noncounseled group wore their braces an average of 10.7 hours/day (p=0.0024). In the counseled group that had finished bracing, 58% did not progress > 5°, while 25% underwent surgery. In the noncounseled group, 45.8% did not progress > 5°, while 37.5% have progressed to 50° or surgery. Forty-nine patients who underwent surgery wore their braces only 10.6 hours/day, compared to 13.1 hours per day in the 111 patients who did not have surgery (p=0.016). The effect of counseling was seen in the Risser 0 (n=112) patients (p=0.0066) but not in the Risser 1 and 2 (n=48) patients (ns).

CONCLUSION
Providing patients compliance feedback and counseling improves brace wear in patients with AIS. Patients who wore their braces more hours/day experienced less curve progression. Patients in both groups who progressed to 50° or surgery wore their braces fewer hours over the course of bracing than their successful counterparts.

CLINICAL APPLICATIONS
Compliance monitoring and counseling should become part of the clinical orthotic management of patients with AIS. Counseling is most effective in younger children.