INTRODUCTION
Recent ATA and AACE guidelines have explicitly sought long-term outcome data regarding cytologically indeterminate nodules with Afirma GEC ‘benign’ results.

METHODS
A PubMed literature search for relevant original publications through May 22, 2016 was performed.

RESULTS
Six published clinical utility studies reported a median follow-up time of 7 months or longer, including 3 studies with ≥13 months follow-up (median 13, 19, and 26 months) (Figure 1). The three studies include 411 GEC ‘benign’ results and the longest reported follow-up time was 44 months. Among these studies with median follow-up > 1 year (including 2 multicenter and 1 single center), 85% of GEC ‘benign’ patients avoided surgery on average. One study included histopathology results and reported 1 cancer among GEC ‘benign’ vs cytopathology benign nodules (Table 1).

CONCLUSIONS
Among cytologically benign nodules, guidelines indicate that nodules requiring follow-up should typically be re-evaluated within 12-24 months. GEC ‘benign’ nodules appear to behave like cytologically benign nodules and are managed similarly during long-term follow-up. More than 400 patients with GEC ‘benign’ results are described in the literature, with durations of follow-up sufficient to sustain their clinical observation until re-evaluation according to recent guideline recommendations. Most GEC benign nodules remain unoperated, and a low prevalence of cancer is reported among them.

FIGURE 1. Literature Review Results

FIGURE 2. Angell et al. Nodule Outcomes

TABLE 1. Singer et al. Nodule Outcomes

REFERENCES
1. Witt RL. Laryngoscope. 2015
4. Angell TE et al. JCEM. 2015