

JAMA | Original Investigation

Effect of Oral Dexamethasone Without Immediate Antibiotics vs Placebo on Acute Sore Throat in Adults

A Randomized Clinical Trial

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IMPORTANCE Acute sore throat poses a significant burden on primary care and is a source of inappropriate antibiotic prescribing. Corticosteroids could be an alternative symptomatic treatment.

OBJECTIVE To assess the clinical effectiveness of oral corticosteroids for acute sore throat in the absence of antibiotics.

DESIGN, SETTING, AND PARTICIPANTS Double-blind, placebo-controlled randomized trial (April 2013–February 2015; 28-day follow-up completed April 2015) conducted in 42 family practices in South and West England, enrolled 576 adults recruited on the day of presentation to primary care with acute sore throat not requiring immediate antibiotic therapy.

INTERVENTIONS Single oral dose of 10 mg of dexamethasone (n = 293) or identical placebo (n = 283).

MAIN RESULTS AND MEASURES Primary: proportion of participants experiencing complete resolution of symptoms at 24 hours. Secondary: complete resolution at 48 hours, duration of moderately bad symptoms (based on a Likert scale, 0, normal; 6, as bad as it could be), visual analog symptom scales (0–100 mm; 0, no symptom to 100, worst imaginable), health care attendance, days missed from work or education, consumption of delayed antibiotics or other medications, adverse events.




RESULTS Of 566 eligible randomized participants (median age, 34 years [interquartile range, 26.0–45.5 years]; 75.2% women; 100% completed the intervention), 288 received dexamethasone and 277, placebo. At 24 hours, participants receiving dexamethasone were not more likely than those receiving placebo to have complete symptom resolution. Results were similar among those who were not offered an antibiotic prescription and those who were offered a delayed antibiotic prescription. At 48 hours, more participants receiving dexamethasone than placebo had complete symptom resolution. This difference also was observed in patients not offered delayed antibiotics. There were no significant differences in any other secondary outcomes.

	Total/No. (%)		Risk Difference, % (95% CI)	RR (95% CI)	P Value
	Dexamethasone (n = 288)	Placebo (n = 277)			
Resolution of Symptoms at 24 h (Primary Outcome)					
Overall	65 (22.6)	49 (17.7)	4.7 (–1.8 to 11.2)	1.28 (0.92–1.78)	.14
Resolution of Symptoms at 48 h (Secondary Outcomes)					
Overall	102 (35.4)	75 (27.1)	8.7 (1.2 to 16.2)	1.31 (1.02–1.68)	.03
No antibiotic prescription	65/173 (37.6)	46/169 (27.2)	10.3 (0.6 to 20.1)	1.37 (1.01–1.87)	.046

CONCLUSIONS AND RELEVANCE Among adults presenting to primary care with acute sore throat, a single dose of oral dexamethasone compared with placebo did not increase the proportion of patients with resolution of symptoms at 24 hours. However, there was a significant difference at 48 hours.

TRIAL REGISTRATION isrctn.org Identifier: ISRCTN1735450

JAMA. 2017;317(15):1535–1543. doi:10.1001/jama.2017.7347

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