

## Supplementary Online Content

Teti VP, Akdagli S, Most SP. Cost-effectiveness of corticosteroid nasal spray vs surgical therapy in patients with severe to extreme anatomical nasal obstruction. *JAMA Facial Plast Surg*. Published online January 7, 2016. doi:10.1001/jamafacial.2015.2039.

**eFigure 1.** Markov Model

**eFigure 2.** Cost Analysis Graph

**eTable 1.** Cost Data for Medical or Surgical Treatment of Nasal Obstruction

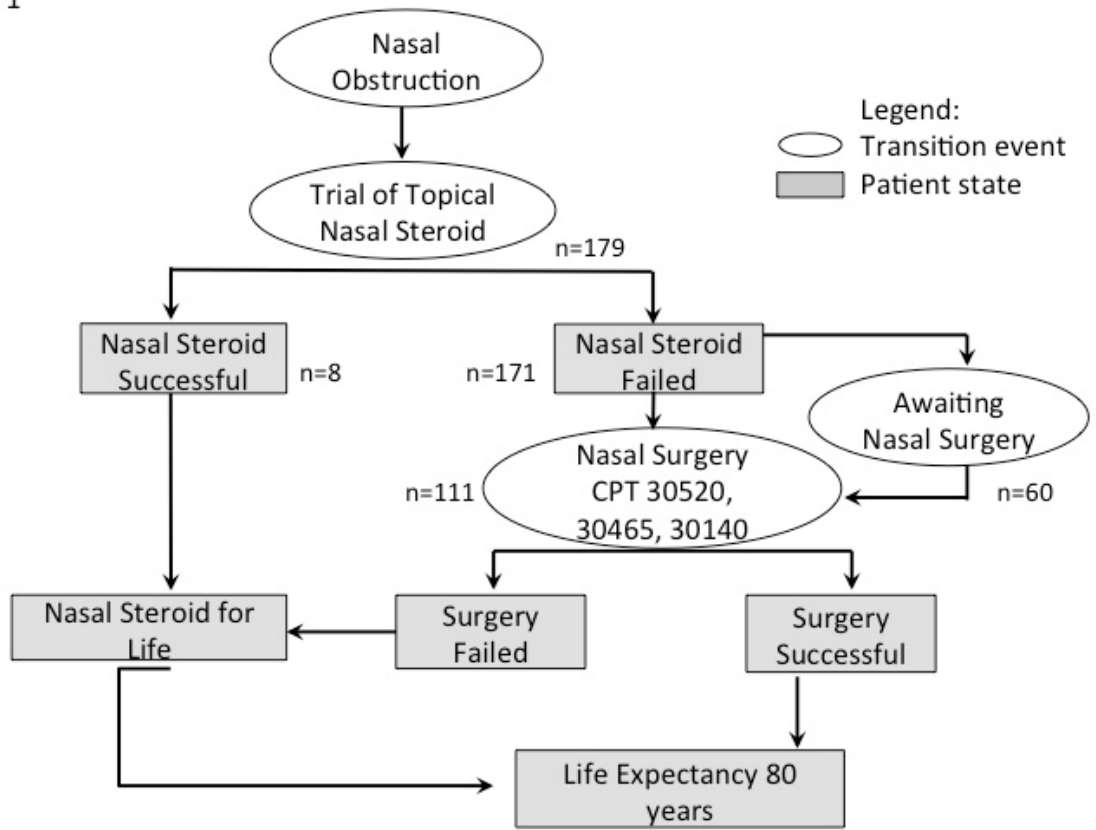
**eTable 2.** Demographics and History of Patients Who Responded to Nasal Corticosteroid Treatment

**eTable 3.** Cost of Intranasal Corticosteroid Sprays

This supplementary material has been provided by the authors to give readers additional information about their work.

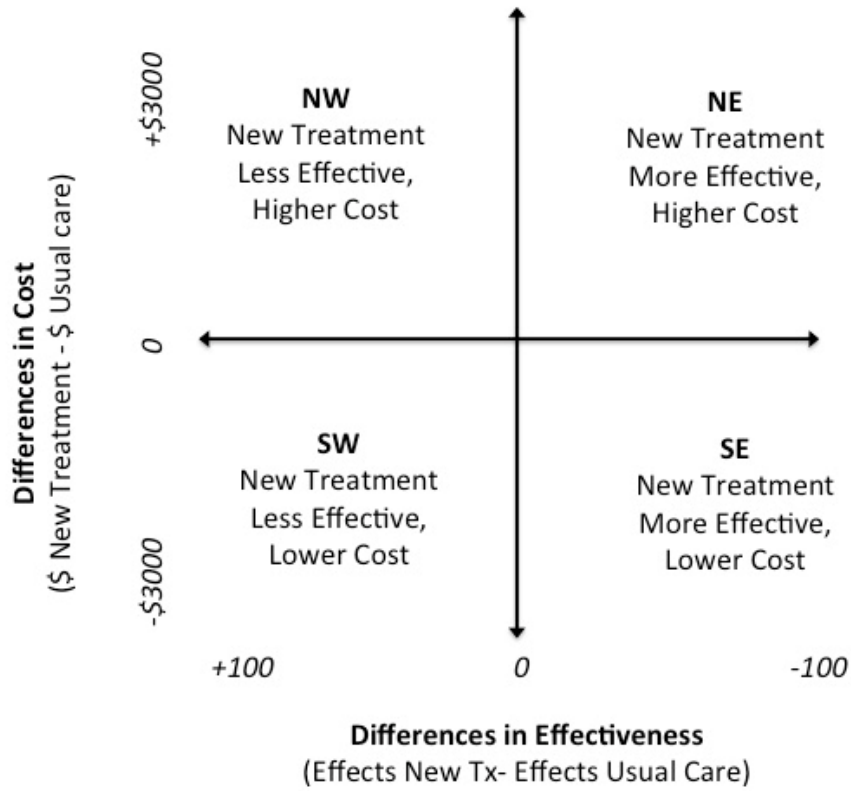
**eFigure 1. Markov Model**

Figure 1



Each circle depicts a decision node, which requires medical decisions; boxes represent patient states in which no further medical decisions are required. CPT indicates *Current Procedural Terminology*.

**eFigure 2.** Cost Analysis Graph



All possible results of a cost-effectiveness analysis divided into 4 quadrants. NE indicates northeast; NW, northwest; SE, southeast; and SW, southwest.

**eTable 1.** Cost Data for Medical or Surgical Treatment of Nasal Obstruction

CPT	Description	Cost (US Dollars)				
		Facility	Non-Facility	Facility Limiting Cost	Non-Facility Limiting Cost	Mean Cost
E/M						
99203	New patient visit, level 3	109.60	77.98	119.73	85.19	98.13
99204	New patient visit, level 4	166.73	131.88	182.15	144.07	156.21
99213	Est. patient visit, level 3	73.30	51.74	80.08	56.14	65.32
99214	Est. patient visit, level 4	108.88	79.41	118.95	86.76	98.50
Procedure		Physician fee*	Facility Fee	Totals		
30140	Inferior turbinate reduction	658.60	1053.80	1712.40		
30520	Septoplasty	465.24	1053.80	1519.04		
30465	Repair of nasal stenosis	1036.79	2013.70	3050.49		
Totals		2160.63	4121.3	6218.93		

All cost data was obtained via the 2015 CMS.gov physician fee schedule. E/M physician reimbursement reflects several factors; first, whether the healthcare provider performs the service in a facility setting (such as a hospital or ambulatory surgery center) versus an office (non-facility). Next, a limiting charge is applied when the healthcare provider is not a participating provider of Medicare or does not accept Medicare assignment. Depending on the setting of the service, the limiting charge is the maximum amount a beneficiary may be charged for the service and is calculated as percentage of the approved reimbursement rate for participating providers. Lastly, depending on the geographic location the service is performed, reimbursement rates may vary. Herein we used the national carrier locality, a national, centralized location reflecting the national payment amount. The final column ‘average cost’ reflects the average of the facility, non-facility, facility limiting and non-facility limiting costs. (\*Physician fee calculated as average of non-facility and facility limiting cost; Facility fees based on CMS.gov 2015 ambulatory surgery center cost).

**eTable 2.** Demographics and History of Patients Who Responded to Nasal Corticosteroid Treatment

		NOSE severity				
Age	Sex	Pre steroid	Post steroid	Exam	AR	Trauma
38	m	mild	mild	S, ITH	y	y
27	m	moderate	mild	OSD, ITH	y	y
41	m	moderate	moderate	S, ITH	y	n
27	f	moderate	moderate	S	y	y
41	m	severe	moderate	CSD	n	n
58	m	severe	moderate	CSD	n	n
33	m	severe	moderate	CSD	y	n
39	m	extreme	severe	OSD	y	n

(AR=allergic rhinitis history, S=septal spur, ITH=inferior turbinate hypertrophy, CSD=caudal septal deviation, OSD=other septal deviation)

**eTable 3.** Cost of Intranasal Corticosteroid Sprays

	<b><u>BANS</u></b>	<b><u>FPNS*</u></b>	<b><u>MFNS</u></b>	<b><u>TANS</u></b>
Average wholesale price for 1-month prescription	35.66	13.96	68.73	70.31
Mean cost of INS per day based on mean prescribed daily dosage	1.54	0.46	1.8	1.97
Days of treatment per prescription filled	44	30	38	34

BANS=budesonide aqueous nasal spray	
FPNS =fluticasone propionate nasal spray	
TANS= triamcinolone acetonide aqueous nasal spray	
MFNS= mometasone furoate nasal spray	

\*Cost reflects the new generic price point for fluticasone propionate inhaled nasal corticosteroid. The cheapest over-the-counter/retail price available online was utilized for this study, as of June 2015. )