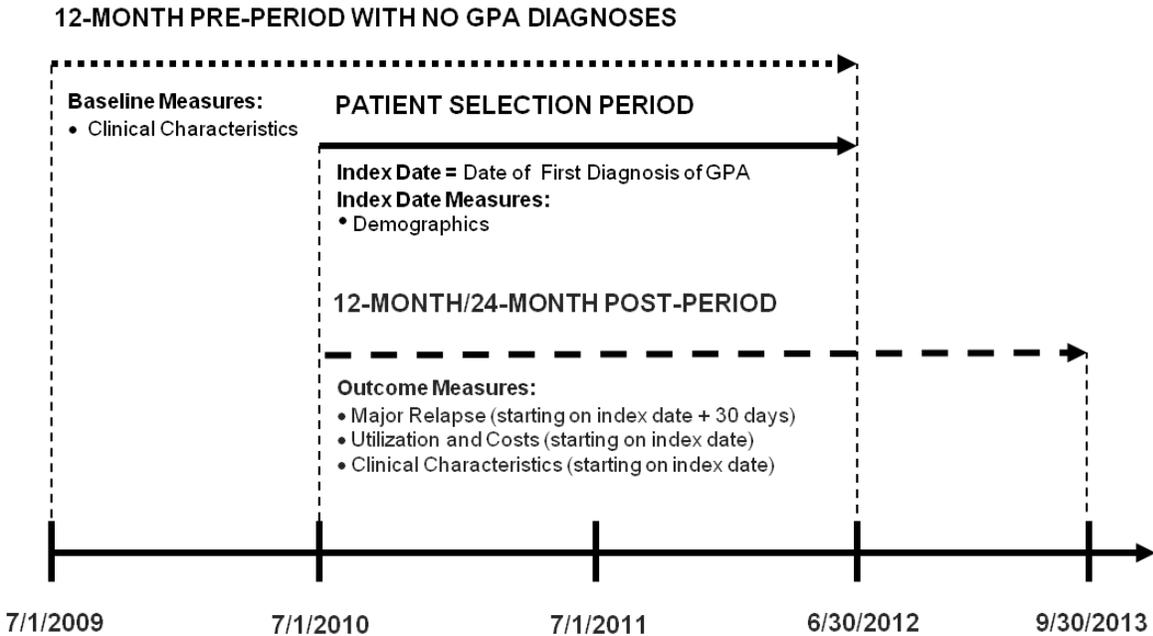
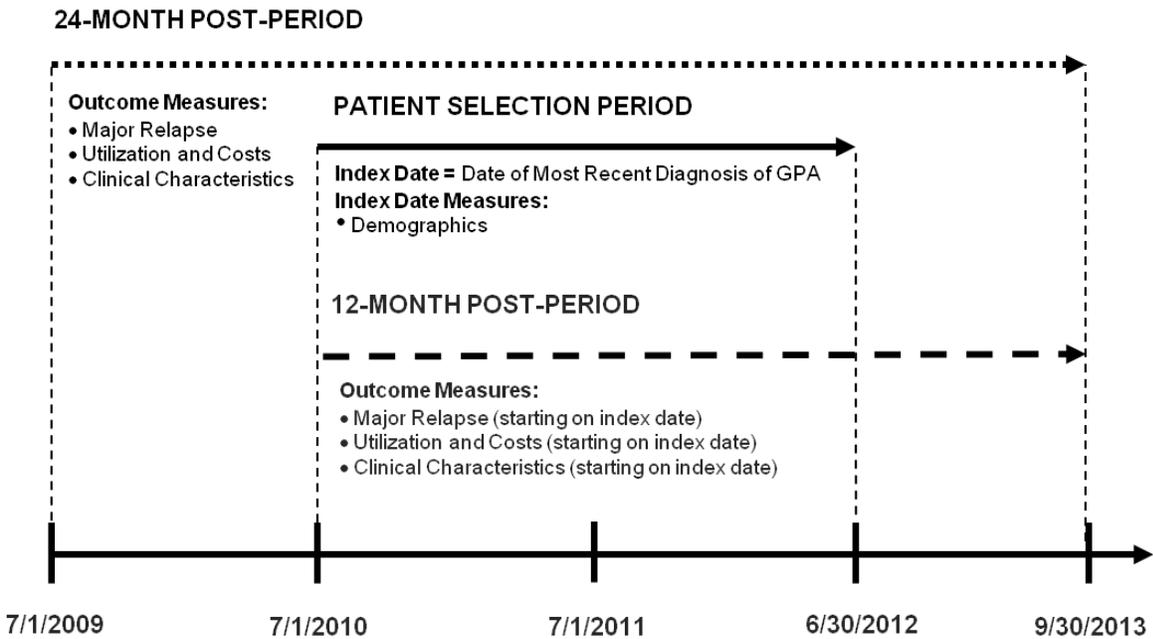


Supplemental Figure 1a and b. Study periods for incident (a) and prevalent (b) patients with granulomatosis with polyangiitis (GPA).

(a)



(b)



Supplemental Table 1. Clinical characteristics of patients with GPA over 24-month followup.

	24-Month Followup		
	Total GPA (N = 1,926)	Incident GPA (N = 309)	Prevalent GPA (N = 1,617)
Mean (SD) Deyo Charlson Comorbidity Index*	2.0 (2.1)	2.0 (2.0)	2.0 (2.2)
Diagnoses of Major Relapse-Associated Conditions based on BVAS*, N (%)			
Acute/chronic renal failure	652 (33.9)	107 (34.6)	545 (33.7)
Gangrene	8 (0.4)	3 (1.0)	5 (0.3)
Scleritis	62 (3.2)	9 (2.9)	53 (3.3)
Retinal exudates/hemorrhage	0 (0.0)	0 (0.0)	0 (0.0)
Sensorineural deafness	202 (10.5)	33 (10.7)	169 (10.5)
Mesenteric ischemia	8 (0.4)	2 (0.6)	6 (0.4)
Lung-related condition	219 (11.0)	43 (14.0)	176 (11.0)
Hemoptysis	94 (4.9)	26 (8.4)	68 (4.2)
Respiratory failure	160 (8.3)	27 (8.7)	133 (8.2)
Meningitis	7 (0.4)	1 (0.3)	6 (0.4)
Cord lesion	8 (0.4)	3 (1.0)	5 (0.3)
Stroke	49 (2.5)	6 (1.9)	43 (2.7)
Cranial nerve palsy	10 (0.5)	3 (1.0)	7 (0.4)
Sensory peripheral neuropathy	131 (6.8)	19 (6.1)	112 (6.9)
Motor mononeuritis multiplex	20 (1.0)	4 (1.3)	16 (1.0)
Relapse during the post-index period			
Presence of relapse, N (%)	576 (29.9)	82 (26.5)	494 (30.6)
1 Relapse	344 (17.9)	51 (16.5)	293 (18.1)

2-3 Relapses	188 (9.8)	25 (8.1)	163 (10.1)
>3 Relapses	44 (2.3)	6 (1.9)	38 (2.4)
Mean (SD) number of relapses per patient among patients with at least one relapse	1.7 (1.2)	1.7 (1.2)	1.8 (1.2)

BVAS: Birmingham Vasculitis Activity Scale; GPA: granulomatosis with polyangiitis.

* Patients with hemoptysis (ICD-9-CM 786.30, 786.39) were gathered because no diagnosis codes were available for alveolar hemorrhage.

Supplemental Table 2. All-cause and GPA-related healthcare costs of patients with granulomatosis with polyangiitis (GPA). All costs in US\$.

	Healthcare Costs			
	12-Month Follow-Up		24-Month Follow-Up	
	Mean (SD)	Median (Min-Max)	Mean (SD)	Median (Min-Max)
	All-cause			
Inpatient admission costs	\$11,876 (\$39,668)	\$0 (\$0-\$738,495)	\$23,517 (\$76,821)	\$0 (\$0-\$1,625,085)
Emergency room costs	\$459 (\$1,576)	\$0 (\$0-\$33,755)	\$844 (\$2,544)	\$0 (\$0-\$62,043)
Outpatient office visit costs	\$1,549 (\$1,260)	\$1,243 (\$0-\$21,434)	\$3,063 (\$2,452)	\$2,537 (\$0-\$38,506)
Other outpatient service costs	\$23,158 (\$66,542)	\$5,864 (\$0-\$987,423)	\$40,661 (\$111,181)	\$13,835 (\$0-\$1,765,932)
Prescription drug costs	\$4,357 (\$7,820)	\$2,160 (\$0-\$155,178)	\$8,713 (\$13,603)	\$4,699 (\$0-\$179,974)
Total costs	\$41,400 (\$87,537)	\$13,934 (\$94-\$1,023,075)	\$76,798 (\$152,863)	\$33,545 (\$111-\$1,954,908)
	GPA-related			
Inpatient admission costs	\$10,149 (\$36,013)	\$0 (\$0-\$737,576)	\$20,292 (\$72,729)	\$0 (\$0-\$1,570,062)
Emergency room costs	\$47 (\$265)	\$0 (\$0-\$4,506)	\$86 (\$419)	\$0 (\$0-\$6,929)
Outpatient office visit costs	\$537 (\$573)	\$378 (\$0-\$6,463)	\$1,046 (\$1,377)	\$774 (\$0-\$38,178)
Other outpatient service costs	\$12,950 (\$59,392)	\$478 (\$0-\$958,830)	\$21,942 (\$98,224)	\$1,280 (\$0-\$1,707,618)

Prescription drug costs	\$637 (\$3,047)	\$107 (\$0-\$74,151)	\$1,374 (\$5,749)	\$279 (\$0-\$105,308)
Total costs	\$24,319 (\$74,362)	\$2,058 (\$0-\$948,081)	\$44,740 (\$129,973)	\$7,451 (\$0-\$1,734,922)

Supplemental Table 3. All-cause and GPA-related healthcare costs by major relapse status in patients with granulomatosis with polyangiitis (GPA). All costs in US\$.

Healthcare Costs				
	With Relapse		Without Relapse	
	Mean (SD)	Median (Min-Max)	Mean (SD)	Median (Min-Max)
12-month Followup				
All-cause Total costs	\$88,065 (\$131,314)	\$43,057 (\$263-\$1,023,075)	\$30,682 (\$69,667)	\$10,799 (\$94-\$950,225)
GPA-related Total costs	\$61,636 (\$116,528)	\$23,489 (\$4-\$984,081)	\$15,748 (\$57,382)	\$1,438 (\$0-\$948,075)
24-month Followup				
All-cause Total costs	\$136,007 (\$199,576)	\$70,766 (\$2,426-\$1,444,120)	\$51,536 (\$119,296)	\$22,425 (\$111-\$1,954,908)
GPA-related Total costs	\$89,761 (\$171,624)	\$34,697 (\$354-\$1,366,646)	\$25,531 (\$101,570)	\$3,413 (\$0-\$1,734,922)

Supplemental Table 4a. All-cause pre-diagnosis healthcare costs of patients with microscopic polyangiitis (MPA). All costs in US\$.

	4-6 Months Pre-Diagnosis		3 Months Pre-Diagnosis	
	Mean (SD)	Median (Min-Max)	Mean (SD)	Median (Min-Max)
Inpatient admission costs	\$5,484 (\$23,253)	\$0 (\$0-\$275,773)	\$9,860 (\$31,782)	\$0 (\$0-\$398,539)
ER costs	\$312 (\$1,404)	\$0 (\$0-\$18,535)	\$582 (\$1,887)	\$0 (\$0-\$24,476)

Outpatient office visit costs	\$337 (\$684)	\$214 (\$0-\$14,437)	\$496 (\$960)	\$335 (\$0-\$15,851)
Other outpatient service costs	\$4,623 (\$13,726)	\$727 (\$0-\$162,751)	\$5,875 (\$14,556)	\$1,594 (\$0-\$173,575)
Prescription drug costs	\$1,230 (\$1,909)	\$582 (\$0-\$13,207)	\$1,369 (\$2,419)	\$643 (\$0-\$14,840)
Total costs	\$11,985 (\$29,828)	\$2,397 (\$0-\$293,871)	\$18,181 (\$38,459)	\$5,347 (\$0-\$446,186)

Supplemental Table 4b. All-cause post-diagnosis healthcare costs of patients with microscopic polyangiitis (MPA). All costs in US\$.

	3 Months Post-diagnosis		4-6 Months Post-diagnosis	
	Mean (SD)	Median (Min-Max)	Mean (SD)	Median (Min-Max)
Inpatient admission costs	\$25,726 (\$72,948)	\$0 (\$0-\$861,316)	\$9,050 (\$43,397)	\$0 (\$0-\$578,819)
ER costs	\$568 (\$1,489)	\$0 (\$0-\$12,297)	\$450 (\$1,688)	\$0 (\$0-\$16,734)
Outpatient office visit costs	\$719 (\$1,075)	\$542 (\$0-\$15,834)	\$495 (\$823)	\$350 (\$0-\$14,557)
Other outpatient service costs	\$9,589 (\$18,560)	\$4,281 (\$0-\$262,750)	\$7,136 (\$15,701)	\$1,939 (\$0-\$189,377)
Prescription drug costs	\$1,562 (\$2,296)	\$818 (\$0-\$19,090)	\$1,347 (\$2,049)	\$609 (\$0-\$16,069)
Total costs	\$38,165 (\$78,286)	\$11,848 (\$81-\$880,259)	\$18,478 (\$48,032)	\$4,727 (\$0-\$608,782)

ER: emergency room.