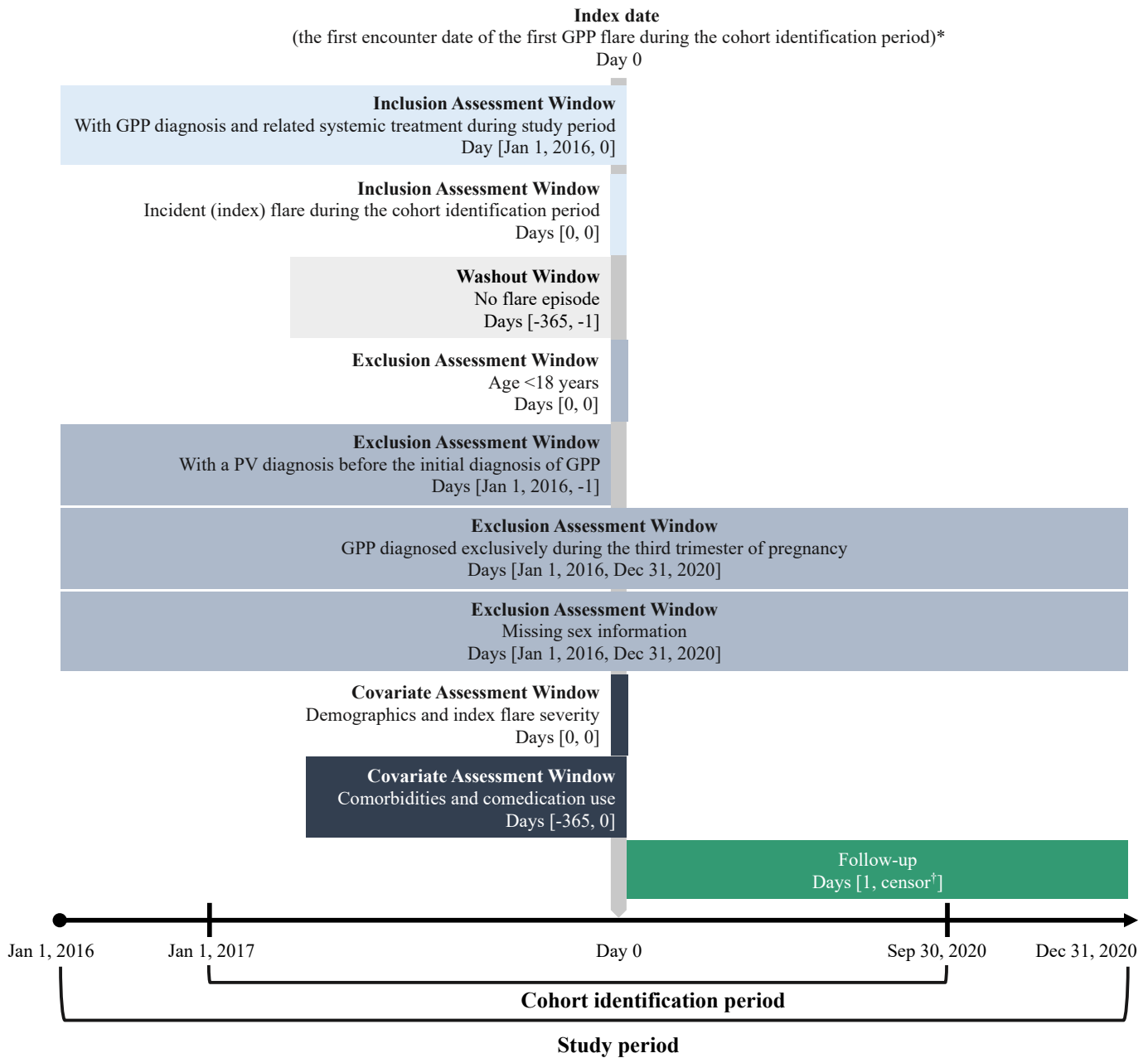


Supplementary Materials

Clinical Characteristics, Healthcare Resource Utilization, and Costs of Patients with Generalized Pustular Psoriasis in Taiwan: A National Claims Database Study



Supplementary Figure S1. Study design scheme (illustrated using the GPP cohort)

*GPP flares were defined based on the intensification of systemic treatment, operationalized as an initiation or escalation of systemic dermatologic treatment, including transition from no related medication or topical treatment alone to systemic treatment; switching to or adding another systemic treatment; resuming systemic treatment after a three-month treatment gap; or dose escalation of an existing systemic therapy. Severe flares were defined as those requiring hospitalization.

[†]Follow-up was censored at death or the end of study period.

Abbreviations: GPP, generalized pustular psoriasis; PV, psoriasis vulgaris.

Supplementary Table S1. Mean healthcare costs among patients with GPP and PV following disease flares

Cost category	GPP (n=245)	PV (n=967)
Costs during 12 weeks following the index flare		
Total costs (USD)	1,214.7 ± 1,719.4	1,007.4 ± 2,654.0
Medication	262.5 ± 644.5	204.0 ± 702.1
Non-medication	952.2 ± 1,571.8	803.4 ± 2,461.4
Inpatient/ER costs (USD)	425.8 ± 1,084.6	445.4 ± 2,347.1
Medication	43.7 ± 330.3	47.5 ± 4,741.9
Non-medication	382.1 ± 998.2	397.9 ± 2,217.5
Outpatient costs (USD)	788.9 ± 1,420.6	562.0 ± 1,127.3
Medication	218.8 ± 563.3	156.5 ± 511.9
Non-medication	570.1 ± 1,273.6	405.5 ± 950.8
Costs per patient per month during entire follow-up period		
Total costs (USD)	401.1 ± 496.5	341.2 ± 1,405.2
Medication	131.8 ± 188.6	119.3 ± 804.1
Non-medication	269.3 ± 407.0	221.9 ± 1,124.3
Inpatient/ER costs (USD)	141.2 ± 361.4	142.2 ± 1,371.2
Medication	20.6 ± 68.7	42.5 ± 794.1
Non-medication	120.6 ± 345.0	99.7 ± 1,101.1
Outpatient costs (USD)	259.9 ± 360.0	199.0 ± 320.3
Medication	111.2 ± 1,731.9	76.9 ± 141.1
Non-medication	148.7 ± 234.3	122.2 ± 228.8

Costs were converted from TWD to USD using the average 2017–2020 exchange rate rounded to 1 USD = 30 TWD, and are presented as mean ± standard deviation and were rounded to one decimal place for reporting clarity.

Medication costs were reimbursed costs for prescribed drugs; non-medication costs included all other reimbursed medical costs, such as physician service, procedure, laboratory, diagnostic, and facility-related fees.

Abbreviations: ER, emergency room; GPP, generalized pustular psoriasis; HCRU, healthcare resource utilization; PV, psoriasis vulgaris.

Supplementary Table S2. Healthcare costs among patients with GPP and PV flares who incurred the specified type of cost

Cost category		GPP (n=245)	PV (n=967)
Costs during 12 weeks following the index flare			
Total cost (USD)	Patients with costs, n (%)	245 (100.0)	967 (100.0)
	Mean $\pm$ SD	1,214.7 $\pm$ 1,719.4	1,007.4 $\pm$ 2,654.0
	Median (IQR)	579.7 (191.2–1,392.2)	274.4 (115.1–692.9)
Medication	Patients with costs, n (%)	199 (81.2)	793 (82.0)
	Mean $\pm$ SD	323.2 $\pm$ 701.6	248.7 $\pm$ 768.1
	Median (IQR)	104.4 (37.0–275.6)	82.1 (33.9–192.2)
Non-medication	Patients with costs, n (%)	245 (100.0)	964 (99.7)
	Mean $\pm$ SD	269.3 $\pm$ 407.0	222.6 $\pm$ 1,126.0
	Median (IQR)	344.0 (118.9–1,191.7)	167.0 (62.9–459.6)
Inpatient/ER costs (USD)	Patients with costs, n (%)	74 (30.2)	184 (19.0)
	Mean $\pm$ SD	1,409.7 $\pm$ 1,589.2	2,340.8 $\pm$ 4,961.6
	Median (IQR)	860.4 (373.9–1,793.2)	826.6 (132.6–1,778.3)
Medication	Patients with costs, n (%)	13 (5.3)	40 (4.1)
	Mean $\pm$ SD	824.3 $\pm$ 1,233.5	1,147.5 $\pm$ 2,067.6
	Median (IQR)	394.6 (160.5–856.7)	133.9 (67.3–1,043.3)
Non-medication	Patients with costs, n (%)	68 (27.8)	162 (16.8)
	Mean $\pm$ SD	1,376.5 $\pm$ 1,496.5	2,375.3 $\pm$ 4,977.7
	Median (IQR)	964.4 (433.6–1,787.7)	840.5 (178.9–1,831.4)
Outpatient costs (USD)	Patients with costs, n (%)	243 (99.2)	961 (99.4)
	Mean $\pm$ SD	795.4 $\pm$ 1,424.6	565.5 $\pm$ 1,130.0
	Median (IQR)	348.8 (138.9–697.9)	236.6 (106.1–432.6)
Medication	Patients with costs, n (%)	197 (80.4)	788 (81.5)
	Mean $\pm$ SD	272.1 $\pm$ 616.8	192.1 $\pm$ 561.1
	Median (IQR)	98.7 (34.2–227.9)	78.7 (31.7–176.5)
Non-medication	Patients with costs, n (%)	229 (93.5)	912 (94.3)
	Mean $\pm$ SD	610.0 $\pm$ 1,308.3	429.9 $\pm$ 973.7
	Median (IQR)	214.3 (84.6–491.6)	139.8 (55.5–312.5)
Costs per patient per month during entire follow-up period			
Total cost (USD)	Patients with costs, n (%)	245 (100.0)	967 (100.0)
	Mean $\pm$ SD	401.1 $\pm$ 496.5	341.2 $\pm$ 1,405.2
	Median (IQR)	187.1 (71.7–578.4)	92.6 (42.6–282.9)
Medication	Patients with costs, n (%)	242 (98.8)	959 (99.2)
	Mean $\pm$ SD	133.4 $\pm$ 189.2	120.3 $\pm$ 807.4
	Median (IQR)	52.3 (19.6–161.9)	31.8 (13.7–78.5)
Non-medication	Patients with costs, n (%)	236 (96.3)	917 (94.8)
	Mean $\pm$ SD	988.5 $\pm$ 1,590.3	847.2 $\pm$ 2,520.3
	Median (IQR)	120.5 (40.9–321.1)	56.0 (22.2–177.6)
Inpatient/ER costs (USD)	Patients with costs, n (%)	182 (74.3)	534 (55.2)

Cost category		GPP (n=245)	PV (n=967)
Medication	Mean $\pm$ SD	190.1 $\pm$ 408.3	257.5 $\pm$ 1,837.8
	Median (IQR)	54.8 (13.8–174.9)	27.2 (3.9–97.6)
	Patients with costs, n (%)	91 (37.1)	236 (24.4)
Non-medication	Mean $\pm$ SD	55.5 $\pm$ 104.1	174.0 $\pm$ 1,602.9
	Median (IQR)	16.3 (3.1–58.3)	6.5 (2.3–35.4)
	Patients with costs, n (%)	170 (69.4)	492 (50.9)
Outpatient costs (USD)	Mean $\pm$ SD	173.8 $\pm$ 403.2	196.0 $\pm$ 1,538.4
	Median (IQR)	50.1 (12.2–154.5)	28.4 (3.9–84.5)
	Patients with costs, n (%)	243 (99.2)	965 (99.8)
Medication	Mean $\pm$ SD	262.0 $\pm$ 360.7	199.4 $\pm$ 313.8
	Median (IQR)	107.8 (46.6–245.2)	70.7 (36.2–161.2)
	Patients with costs, n (%)	242 (98.8)	956 (98.9)
Non-medication	Mean $\pm$ SD	112.6 $\pm$ 173.8	77.7 $\pm$ 141.7
	Median (IQR)	42.6 (17.9–108.9)	28.9 (12.8–64.1)
	Patients with costs, n (%)	243 (99.2)	962 (99.5)
	Mean $\pm$ SD	149.9 $\pm$ 234.9	122.8 $\pm$ 229.2
	Median (IQR)	57.9 (25.2–135.8)	40.0 (18.7–93.6)

Costs were calculated using a denominator restricted to patients who experienced the corresponding events, and were converted from TWD to USD using the average 2017–2020 exchange rate rounded to 1 USD = 30 TWD. All costs were rounded to one decimal place for reporting clarity. Medication costs were reimbursed costs for prescribed drugs; non-medication costs included all other reimbursed medical costs, such as physician service, procedure, laboratory, diagnostic, and facility-related fees.

Abbreviations: GPP, generalized pustular psoriasis; HCRU, healthcare resource utilization; PV, psoriasis vulgaris; SD, standard deviation; IQR, interquartile range.