Appendices: Supplementary materials

Perng et al., Fall and risk factors for veterans and nonveterans inpatients over the age of 65: 14

years of long-term data analysis

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Table S1. Abbreviation and ICD-9-CM / NHI order code

Variables	Abbreviation	ICD-9-CM / NHI order code
Events		
Falls		880-888
From the different level		880-884
On the same level		885-886
Unspecified		887-888
Comorbidities		
Mental disorder		290-319
Eye disease		360-379
Hypertension	HTN	401–405
Hyperlipidemia		272
Atherosclerosis		440
Chronic obstructive pulmonary disease	COPD	490–496
Ischemic heart disease	IHD	410–414
Heart failure	HF	428
Cerebrovascular disease	CD	430-438
Rheumatism	RA	725-729
Peptic ulcer disease	PUD	533
Liver disease		571
Diabetes mellitus	DM	250
Hemiplegia		342-344
Chronic kidney disease	CKD	580-589
Cancer		140–239

Table S2. Factors of falls by using Cox proportional hazard regression in different model

Model	Variables	Adjusted HR	95% CI	*P-value*
Model 1	Falls	1.252	1.234-1.270	<0.001
Model 2	Falls			
	From the different level	1.171	1.122-1.222	<0.001
	On the same level	1.193	1.171-1.215	<0.001
	Unspecified	1.451	1.410-1.493	<0.001
Model 3	Single Fall	1.229	1.208-1.249	<0.001
	Recurrent Falls	1.290	1.250-1.331	<0.001

Abbreviations: HR=hazard ratio, CI=confidence interval, Adjusted HR: Adjusted for the variables listed in Table 2.

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Table S3 Prevalence of osteoporosis in veterans and nonveterans who experienced falling

Osteoporosis	Group		Total	P-value
	Non veterans (%)	Veterans (%)		
Without	521,699 (4.8)	33,747 (95.2)	85,916 (94.9)	
With	2,868 (5.2)	1,707 (4.8)	4,575 (5.1)	<0.001
Total	55,037 (100)	35,454 (100)	90,491 (100)	

Table S4   Analysis of veterans with mental disorders and urbanization

Mental disorder	Urbanization			Total	P-value
	Low (%)	Midian (%)	High (%)		
Without	46,337 (76.0)	195,596 (84.8)	70,274 (85.4)	312,207 (83.5)	
With	14,660 (24.0)	35,195 (15.2)	11,995 (14.6)	61,850 (16.5)	<0.001
Total	60,997 (100.0)	230,791 (100.0)	82,269 (100)	374,057 (100)	

Table S5. Risk factors of falls stratified by variables listed in the table based on the Cox regression analysis

Group	Veterans			Non Veterans			Adjusted HR	95% CI	P-value
Stratified	Event	PYs	Rate	Event	PYs	Rate			
Mental disorder									
Depression	2,551	105,775	2,412	2,250	115,801	1,943	1.366	1.283-1.454	<0.001
Anxiety	1,110	52,259	2,124	1,051	64,946	1,618	1.317	1.201-1.443	<0.001
EYE disorder									
Cataract	4,502	307,007	1,466	2,573	212,489	1,211	1.378	1.306-1.453	<0.001
Glaucoma	820	51,179	1,602	606	50,345	1,204	1.414	1.259-1.588	<0.001

PYs = Person-years; Adjusted HR = Adjusted Hazard ratio: Adjusted for the variables listed in Table 2; Rate = per 100,000 PYs; CI = confidence interval.

Table S6. Risk factors of recurrent falls by multivariable cox proportional hazard regression amongst veterans

Variables	Adjusted HR	95 % CI	*P-value*
Depression	1.938	1.793-2.094	<0.001
Cataract	1.322	1.237-1.412	<0.001

HR = Hazard ratio CI = confidence interval, AHR: Adjusted Hazard ratio: Adjusted for the variables listed in Table 2; comorbidities are listed in Table S1.

Table S7. Analysis between depression and chronic diseases

Variables	Reference	Adjusted HR	95% CI	P-value
Depression + HT	No Depression + No HT	2.260	2.211-2.375	<0.001
Depression + COPD	No Depression + No COPD	1.829	1.745-1.898	<0.001
Depression + CD	No Depression + No CD	1.867	1.793-1.946	<0.001
Depression + RA	No Depression + No RA	1.849	1.708-1.985	<0.001

HR = Hazard ratio CI = confidence interval, Adjusted HR: Adjusted Hazard ratio: Adjusted for the variables listed in Table 2; comorbidities are listed in Table S1.

Table S8 Comparison the medical utilization of falling between veterans and nonveterans

variables	Total Mean ± SD	Veterans Mean ± SD	Nonveterans Mean ± SD	P-value
Length of day*	8.92 ± 8.72	9.13 ± 8.83	8.77 ± 8.65	<0.001
Medical cost(NT$)*	58,905 ± 77,292	58,997 ± 78,218	58,845 ± 76,690	<0.773
Death (%)	2,846 (3.25)	1,297 (3.7)	1,549 (2.8)	<0.001

Chi-square/Fisher exact test on category variables and *t-test on continue variables.

SD: standard deviation