

Supplementary Information 1: List of 109 ICD codes and respective weights to compute HFRS

ICD Code	ICD Description	Weight
F00	Dementia in Alzheimer's disease	7.1
G81	Hemiplegia	4.4
G30	Alzheimer's disease	4.0
I69	Sequelae of cerebrovascular disease (secondary codes)	3.7
R29	Other symptoms and signs involving the nervous and musculoskeletal systems (R29·6 Tendency to fall)	3.6
F05	Delirium, not induced by alcohol and other psychoactive substances	3.2
N39	Other disorders of urinary system (includes urinary tract infection and urinary incontinence)	3.2
S00	Superficial injury of head	3.2
W19	Unspecified fall	3.2
R31	Unspecified haematuria	3.0
B96	Other bacterial agents as the cause of diseases classified to other chapters (secondary code)	2.9
R41	Other symptoms and signs involving cognitive functions and awareness	2.7
I67	Other cerebrovascular diseases	2.6
R26	Abnormalities of gait and mobility	2.6
R56	Convulsions, not elsewhere classified	2.6
R40	Somnolence, stupor and coma	2.5
S06	Intracranial injury	2.4
T83	Complications of genitourinary prosthetic devices, implants and grafts	2.4
E86	Volume depletion	2.3
E87	Other disorders of fluid, electrolyte and acid-base balance	2.3
M25	Other joint disorders, not elsewhere classified	2.3
S42	Fracture of shoulder and upper arm	2.3
R54	Senility	2.2
F03	Unspecified dementia	2.1
W18	Other fall on same level	2.1
Z50	Care involving use of rehabilitation procedures	2.1
F01	Vascular dementia	2.0
L03	Cellulitis	2.0
S80	Superficial injury of lower leg	2.0
Z75	Problems related to medical facilities and other health care	2.0
E53	Deficiency of other B group vitamins	1.9
H54	Blindness and low vision	1.9

ICD Code	ICD Description	Weight
G20	Parkinson's disease	1.8
K59	Other functional intestinal disorders	1.8
N17	Acute renal failure	1.8
R55	Syncope and collapse	1.8
S22	Fracture of rib(s), sternum and thoracic spine	1.8
Z60	Problems related to social environment	1.8
B95	Streptococcus and staphylococcus as the cause of diseases classified to other chapters	1.7
L89	Decubitus ulcer	1.7
Z22	Carrier of infectious disease	1.7
A41	Other septicaemia	1.6
I95	Hypotension	1.6
K26	Duodenal ulcer	1.6
L97	Ulcer of lower limb, not elsewhere classified	1.6
N19	Unspecified renal failure	1.6
R44	Other symptoms and signs involving general sensations and perceptions	1.6
G40	Epilepsy	1.5
J96	Respiratory failure, not elsewhere classified	1.5
M19	Other arthrosis	1.5
X59	Exposure to unspecified factor	1.5
Z87	Personal history of other diseases and conditions	1.5
E16	Other disorders of pancreatic internal secretion	1.4
M81	Osteoporosis without pathological fracture	1.4
N18	Chronic renal failure	1.4
R94	Abnormal results of function studies	1.4
S32	Fracture of lumbar spine and pelvis	1.4
S72	Fracture of femur	1.4
N28	Other disorders of kidney and ureter, not elsewhere classified	1.3
R33	Retention of urine	1.3
R69	Unknown and unspecified causes of morbidity	1.3
G31	Other degenerative diseases of nervous system, not elsewhere classified	1.2
G45	Transient cerebral ischaemic attacks and related syndromes	1.2
R32	Unspecified urinary incontinence	1.2
R45	Symptoms and signs involving emotional state	1.2

ICD Code	ICD Description	Weight
S09	Other and unspecified injuries of head	1.2
Y95	Nosocomial condition	1.2
A04	Other bacterial intestinal infections	1.1
A09	Diarrhoea and gastroenteritis of presumed infectious origin	1.1
J18	Pneumonia, organism unspecified	1.1
M79	Other soft tissue disorders, not elsewhere classified	1.1
S01	Open wound of head	1.1
W06	Fall involving bed	1.1
Z74	Problems related to care-provider dependency	1.1
E55	Vitamin D deficiency	1.0
J69	Pneumonitis due to solids and liquids	1.0
R02	Gangrene, not elsewhere classified	1.0
R47	Speech disturbances, not elsewhere classified	1.0
Z93	Artificial opening status	1.0
E05	Thyrotoxicosis [hyperthyroidism]	0.9
H91	Other hearing loss	0.9
M41	Scoliosis	0.9
R63	Symptoms and signs concerning food and fluid intake	0.9
W01	Fall on same level from slipping, tripping and stumbling	0.9
W10	Fall on and from stairs and steps	0.9
I63	Cerebral Infarction	0.8
K92	Other diseases of digestive system	0.8
M80	Osteoporosis with pathological fracture	0.8
R13	Dysphagia	0.8
Z06	Agent resistant to penicillin and related antibiotics	0.8
Z99	Dependence on enabling machines and devices	0.8
F10	Mental and behavioural disorders due to use of alcohol	0.7
J22	Unspecified acute lower respiratory infection	0.7
N20	Calculus of kidney and ureter	0.7
R00	Abnormalities of heart beat	0.7
Y84	Other medical procedures as the cause of abnormal reaction of the patient	0.7
R79	Other abnormal findings of blood chemistry	0.6
Z73	Problems related to life-management difficulty	0.6

ICD Code	ICD Description	Weight
F32	Depressive episode	0.5
M48	Spinal stenosis (secondary code only)	0.5
S51	Open wound of forearm	0.5
Z91	Personal history of risk-factors, not elsewhere classified	0.5
D64	Other anaemias	0.4
E83	Disorders of mineral metabolism	0.4
L08	Other local infections of skin and subcutaneous tissue	0.4
M15	Polyarthrosis	0.4
K52	Other noninfective gastroenteritis and colitis	0.3
R11	Nausea and vomiting	0.3
R50	Fever of unknown origin	0.1